



March 18, 2011

Ms. Kimberly Tisa  
PCB Coordinator  
U.S. Environmental Protection Agency Region 1  
5 Post Office Square – Suite 100  
Boston, Massachusetts 02109-3912

Re: PCB Remediation Plan  
Anderson and Upton Halls  
University of Southern Maine, Gorham, Maine

Dear Ms. Tisa:

On behalf of the University of Southern Maine (USM), Woodard & Curran has prepared this PCB Remediation Plan to comply with U.S. Environmental Protection Agency (EPA) requirements under 40 CFR 761.61. This Plan details the proposed remedial approach for polychlorinated biphenyl (PCB) bulk product waste (original caulking) and PCB remediation waste (impacted adjacent materials) located at two buildings – Anderson Hall and Upton Hall – scheduled for renovation work at the USM campus in Gorham, Maine.

This submittal includes characterization data, a data usability assessment, a discussion of remedial objectives and cleanup levels, a proposed remedial approach for each PCB-affected media, a schedule for completing the remediation work, and a conceptual plan for long-term monitoring and maintenance of select media.

If you have any comments, questions, or require further information, please do not hesitate to e-mail or call me at the number listed above. Pending your review and approval, USM is prepared to commence work in May of 2011.

Sincerely,

WOODARD & CURRAN INC.

Jeffrey Hamel, LSP, LEP  
Senior Vice President

Project Number 224164

Enclosure(s)

cc: Carol Potter, USM  
Nick Hodgkins, MEDEP



# PCB Remediation Plan

Anderson Hall &  
Upton Hall

University of Southern  
Maine

Project No. 224164.00

**University of  
Southern Maine**

March 2011

## TABLE OF CONTENTS

SECTION	PAGE NO.
<b>1. INTRODUCTION .....</b>	<b>1-1</b>
1.1 Background .....	1-1
1.2 Building and Renovation Project Description .....	1-2
1.3 Conceptual Site Model .....	1-2
1.4 Plan Organization .....	1-3
<b>2. SITE CHARACTERIZATION .....</b>	<b>2-1</b>
2.1 Sample Collection and Analysis Methods .....	2-1
2.2 Site Characterization Results – Anderson Hall .....	2-2
2.2.1 Anderson Hall – North / West / South Windows .....	2-2
2.2.2 Anderson Hall – East / Northeast Windows .....	2-3
2.2.3 Anderson Hall – Concrete Overhang and Lower Perimeter .....	2-3
2.3 Site Characterization Results – Upton Hall .....	2-4
2.3.1 Upton Hall – South Elevation First Floor .....	2-4
2.3.2 Upton Hall – North Elevation Full Length Windows .....	2-5
2.3.3 Upton Hall – Southwest Stair Elevation .....	2-7
2.3.4 Upton Hall – North Elevation First Floor .....	2-8
2.4 Adjacent Ground Surfaces .....	2-9
2.5 Data Usability Assessment .....	2-9
<b>3. REMEDIATION PLAN .....</b>	<b>3-1</b>
3.1 Site Preparation and Controls .....	3-1
3.2 Remediation Plan for PCB-Containing Media – Anderson Hall .....	3-2
3.2.1 Anderson Hall – North / West / South Windows .....	3-2
3.2.2 Anderson Hall – East / Northeast Windows .....	3-2
3.2.3 Anderson Hall – Concrete Overhang and Lower Perimeter Concrete .....	3-3
3.3 Remediation Plan for PCB-Containing Media – Upton Hall .....	3-5
3.3.1 Upton Hall – South Elevation First Floor .....	3-5
3.3.1.1 Exterior Adjacent Materials .....	3-5
3.3.2 Upton Hall – North Elevation Full Length Windows .....	3-6
3.3.2.1 Exterior Adjacent Materials .....	3-7
3.3.2.2 Interior Adjacent Materials .....	3-8
3.3.3 Upton Hall – Southwest Stair Elevation and North Elevation First Floor .....	3-9
3.4 Storage and Disposal .....	3-10
3.5 Recordkeeping and Documentation .....	3-11
3.6 Adjacent Ground Surfaces .....	3-11
3.7 Schedule .....	3-11
3.8 Conceptual Monitoring And Maintenance Plan .....	3-11

---

## LIST OF TABLES

### TABLE

---

Table 2-1: Characterization Sample Summary – Anderson and Upton Halls

## LIST OF FIGURES

### FIGURE

---

Figure 1-1: Site Locus Map

Figure 2-1: Floor Plan and Exterior Elevations – Anderson Hall

Figure 2-2: Floor Plan and Exterior Elevations – Upton Hall

## APPENDICES

### APPENDIX

---

Appendix A: Laboratory Analytical Data

Appendix B: Written Certification



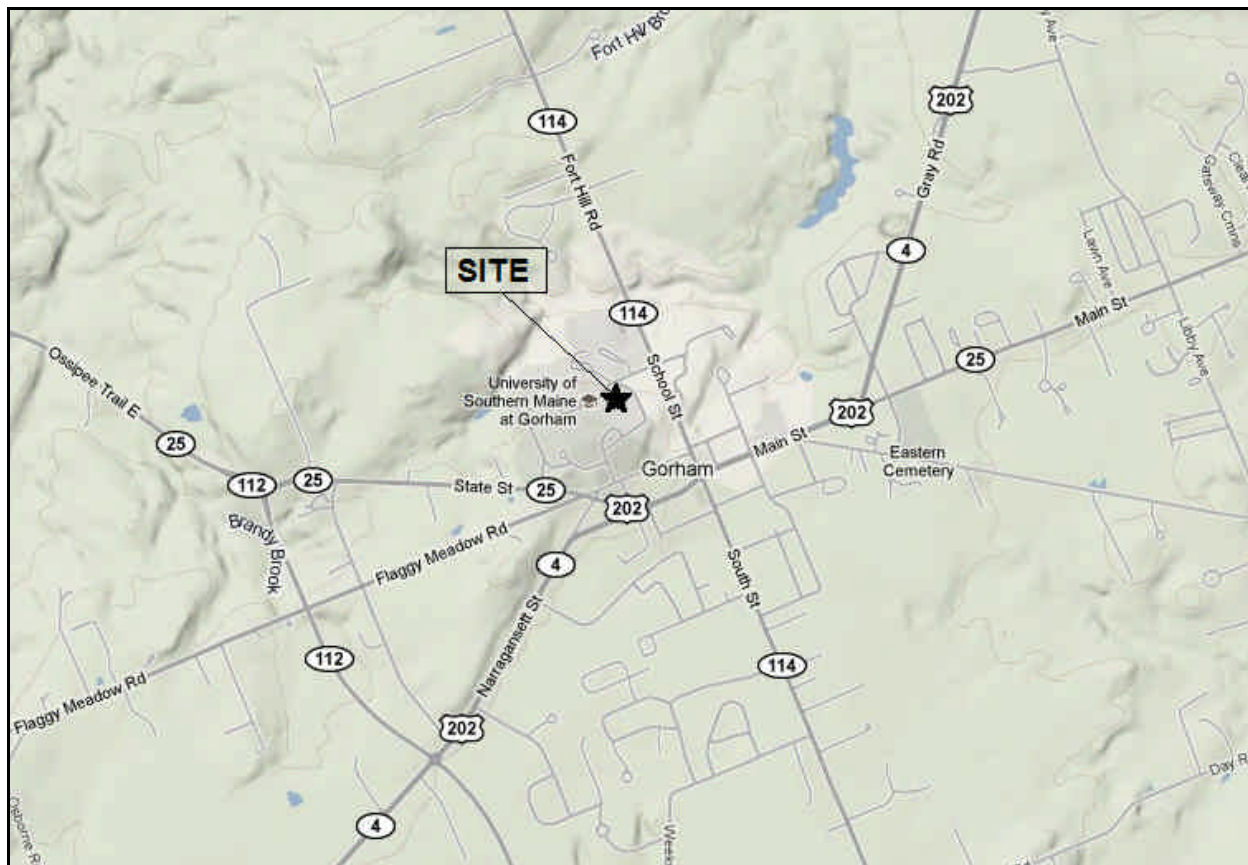
## 1. INTRODUCTION

Woodard & Curran (W&C) has prepared this PCB Remediation Plan ("Plan") on behalf of the University of Southern Maine (USM) to comply with U.S. Environmental Protection Agency (EPA) requirements under 40 CFR 761.61. This Plan details the proposed remedial approach for polychlorinated biphenyl (PCB) bulk product waste (original caulking) and PCB remediation waste (impacted adjacent materials) located at two buildings – Anderson Hall and Upton Hall – scheduled for renovation work at the USM campus in Gorham, Maine.

### 1.1 BACKGROUND

The two buildings scheduled for renovation are located at 40 Campus Ave (Anderson Hall) and 52 University Way (Upton Hall) at the center of the USM campus in Gorham. Both buildings are used primarily as residence halls for undergraduate students. The buildings were originally constructed in 1958 (Upton Hall) and 1962 (Anderson Hall), and are constructed mainly of brick masonry on concrete foundations. Photos of each area scheduled for renovation work are provided at the end of this section. Surrounding ground surfaces are flat to gently sloped and consist of asphalt walkways or grass-covered soils. A Site Locus Map of the surrounding area is provided as Figure 1-1 below.

**Figure 1-1: Site Locus Map**



## 1.2 BUILDING AND RENOVATION PROJECT DESCRIPTION

The scope of the upcoming renovation project includes window bank removal and replacement at the following areas; photos are provided at the end of this section:

- Anderson Hall:
  - North / West / South Windows (entire second floor window bank – see Photo 1-1)
  - East / Northeast Windows (entire second floor wall / window bank – see Photo 1-2)
- Upton Hall:
  - Southwest Stair Elevation (windows & panels at all elevations – see Photo 1-3)
  - South Elevation First Floor (entire first floor window & panel bank – see Photo 1-4)
  - North Elevation First Floor (entire first floor window & panel bank – see Photo 1-5)
  - North Elevation Full Length Windows (windows & panels at all elevations – see Photo 1-6)

At Anderson Hall, the interior of the building adjacent to the work area on the second floor is used primarily as common space (a lounge and open space). The west end of this floor is occupied by the Gorham TV station office, and the east end of this floor consists of an apartment space occupied by the Residential Life Director. The window bank scheduled for removal forms the entire wall at this elevation around all four sides of the building.

At Upton Hall, the interior of the building adjacent to the work areas have different uses depending on the floor. The Southwest Stair Elevation window bank is entirely adjacent to an interior stairwell accessing the first, second, third, and fourth floors of the building. The South Elevation First Floor and the North Elevation First Floor are on opposite sides of the University Health and Counseling Services offices and Residential Life offices. The North Elevation Full Length Windows are adjacent to the USM card office (garden level), the Health Services offices (first floor), a laundry room (second floor), and a classroom (third floor). The window banks scheduled for removal form the entire walls at each location.

## 1.3 CONCEPTUAL SITE MODEL

Certain joint caulking used as part of standard construction practices for masonry buildings and concrete structures erected between the 1950's and late 1970's is known to have been manufactured with PCBs. PCBs were added to caulking for durability, resistance to degradation, and as a softener/plasticizer for application. Due to the porous nature of concrete and other masonry surfaces, PCBs in caulking may penetrate into adjacent materials during application or over time, may leach or weather, and/or may be disturbed during renovations or other work. Production and approved usage of PCBs was halted in the United States in the late 1970s. As indicated above, Anderson and Upton Halls were constructed during this time period.

In preparation for the Anderson and Upton Halls renovation projects and based on the date of building construction, interior and exterior caulking materials in the scheduled work areas were inspected and inventoried, and representative samples were collected for PCB analysis. Analytical results indicated that some interior and exterior caulking materials contained PCBs at concentrations greater than 50 parts per million (ppm). Based on these results,

adjacent building materials were sampled to determine whether PCBs had migrated from the caulking into these adjacent materials. Detectable concentrations of PCBs were reported in certain adjacent materials as presented in this Plan.

Based on the concentration and distribution of PCBs detected in adjacent materials, it is apparent that the caulking used in original construction was the source of PCBs. In general, concentration gradients identified in the adjacent materials demonstrate a reduction in total PCBs with increasing distance from caulked joints.

Under 40 CFR Part 761, caulking containing PCBs  $\geq 50$  ppm and select building materials coated or in direct contact with the caulking will be managed as a PCB Bulk Product Waste per 40 CFR 761.62 upon demolition. Adjacent building materials and soils identified with PCBs  $> 1$  ppm will be managed as PCB Remediation Waste in accordance with 40 CFR 761.61.

## **1.4 PLAN ORGANIZATION**

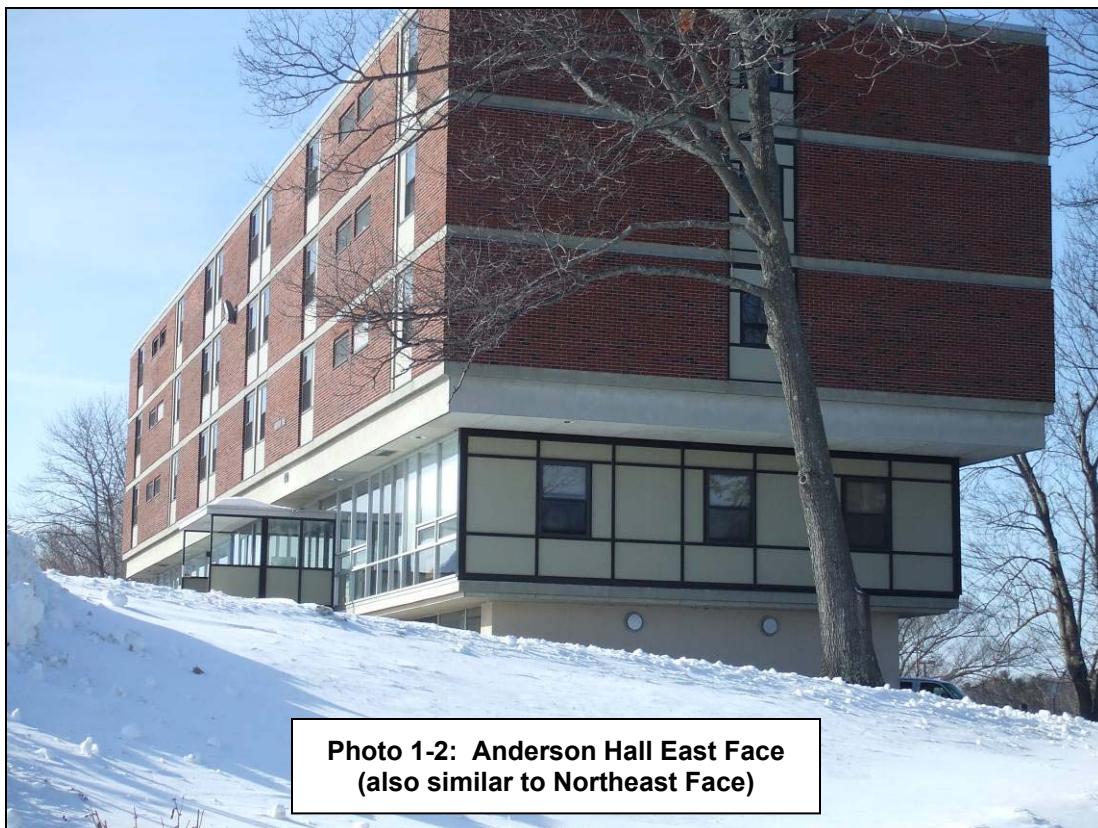
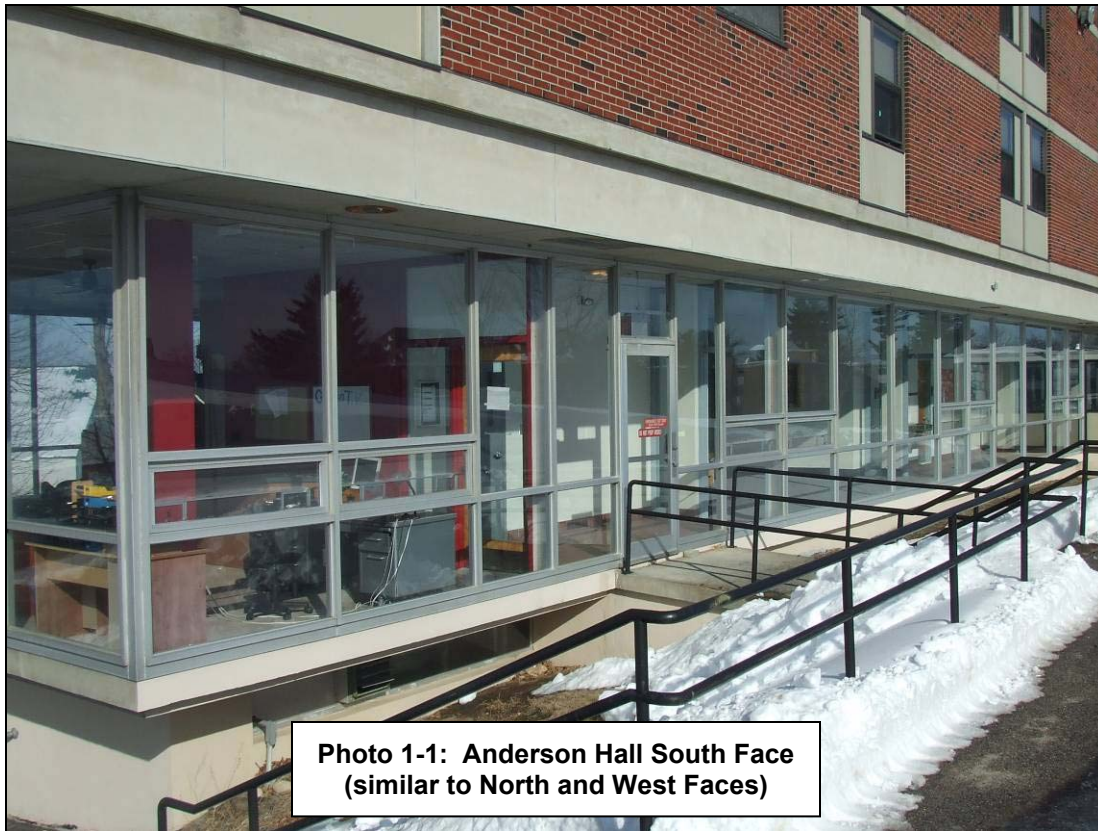
This Plan is organized into the following sections:

### ***Section 2: Site Characterization***

The site characterization section provides a summary of the characterization data that has been collected to date and presents the nature and extent of PCBs.

### ***Section 3: Remediation Plan***

The remediation plan section includes a discussion of the remedial objectives and cleanup levels, the remediation approach for each PCB-affected media, a sequence of activities, and a verification sampling plan.







**Photo 1-3: Upton Hall Southwest Stair Elevation**









---

## 2. SITE CHARACTERIZATION

A total of 52 primary samples have been collected from caulking and adjacent materials at representative interior and exterior locations at Anderson and Upton Halls. This includes 2 samples<sup>1</sup> collected by Northeast Test Consultants (NTC), 21 samples collected by Summit Environmental Consultants, Inc. (Summit), and 29 samples collected by Woodard & Curran. These samples included:

- Caulking (39 bulk samples);
- Concrete (5 bulk samples);
- Brick (4 bulk samples);
- Metal (2 surface wipe samples); and
- Soil (2 bulk samples).

An analytical data summary is provided as Table 2-1. In addition to the primary samples outlined above, two field duplicate samples and two field equipment blank samples were collected for quality control purposes.

### 2.1 SAMPLE COLLECTION AND ANALYSIS METHODS

The sample collection and analysis methods presented in this section apply only to the samples collected by Woodard & Curran unless otherwise specified.

Reusable sampling equipment was decontaminated prior to use and between each sample location using an initial gross removal to remove any visible material or debris followed by a detergent scrub, a distilled water rinse, and a final wipe down. Sampling methods particular to each sample media are described below.

- Caulking samples were collected by cutting and scraping the caulking from the joint with hand tools. If adjacent media (e.g., concrete or a foam backer rod) was inadvertently removed in the process of sample collection, this media was physically removed from the caulking before the appropriate volume of the sample media was placed in its sample container.
- Concrete and brick sampling was conducted in general accordance with the USEPA Region I *Draft Standard Operating Procedure for Sampling Concrete in the Field* (December 1997) using a hammer drill. Holes were made into the concrete to a depth of 0.5 inches and spanned a length necessary to achieve the required sample volume. After the holes were made, the bulk material was scooped from the surface using hand tools and placed in the appropriate sample containers.
- Wipe samples were collected in accordance with the standard wipe test as defined in 40 CFR 761.123. Wipe samples were collected from the prescribed 100 cm<sup>2</sup> area using a laboratory prepared hexane-soaked gauze pad.

---

<sup>1</sup> Some of the initial sample locations could not be verified in the field based on the documentation provided. Where these sample locations could not be confirmed, additional samples were collected from representative locations to evaluate the collective data set. The set of 52 primary samples presented in this section represents the set of data that was considered usable for the purposes of characterizing PCB-affected site media in accordance with 40 CFR Part 761.



Bulk media and surface wipe samples collected by Woodard & Curran were logged on standard chain-of-custody (COC) forms and stored on ice for delivery to Analytics Environmental Laboratory of Portsmouth, New Hampshire. Samples were extracted using USEPA Method 3540C (Soxhlet Extraction) and analyzed for PCBs using USEPA Method 8082. The complete laboratory analytical reports for the characterization data are provided in Appendix A of this report.

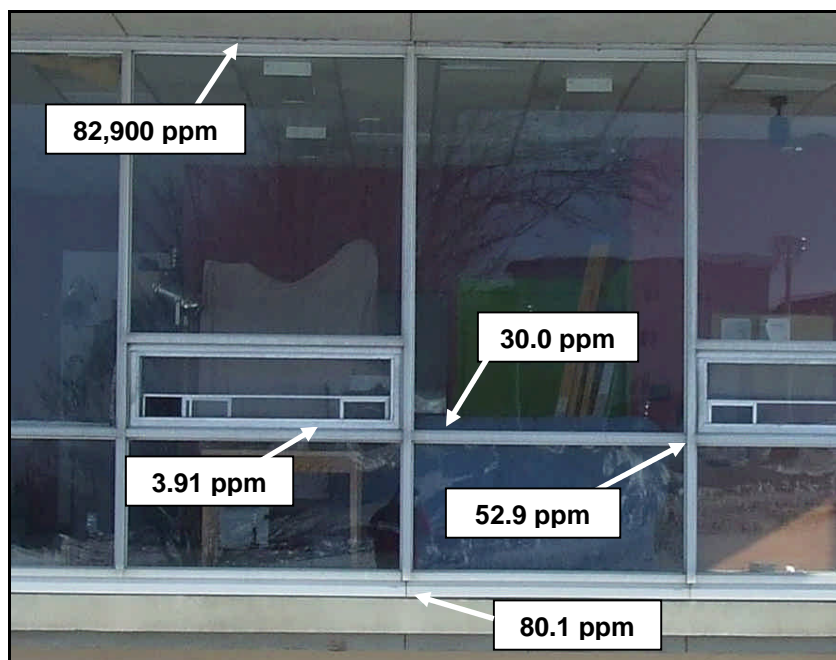
Samples collected in January 2010 (NTC) were analyzed by USEPA Method 8082. Samples collected in March 2010 (Summit) were extracted by USEPA Method 3550B and analyzed by USEPA Method 8082.

## 2.2 SITE CHARACTERIZATION RESULTS – ANDERSON HALL

Characterization samples were collected from suspect caulking materials observed at representative joint types scheduled for disturbance during upcoming renovation activities at Anderson Hall. If a  $\geq 50$  ppm PCB source material was determined to be present, adjacent material samples were collected where those adjacent materials were scheduled to remain in place to determine a remediation approach for that material. The analytical data presented in the following sections is summarized on Table 2-1, and the locations are depicted on a building elevation plan provided as Figure 2-1.

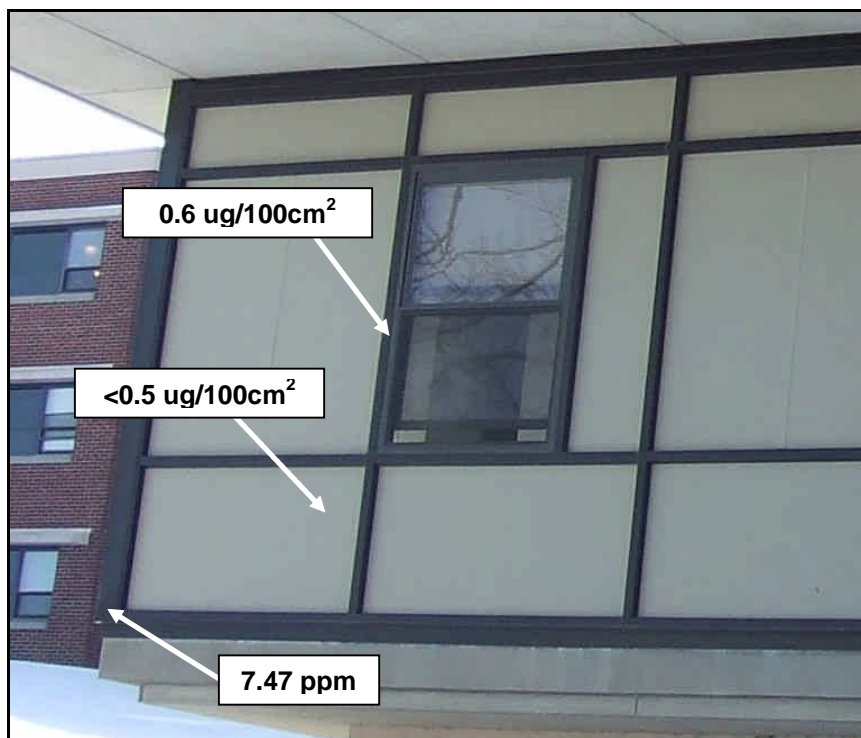
### 2.2.1 Anderson Hall – North / West / South Windows

The caulking present at the upper and lower horizontal metal frame to concrete structure perimeter joints contain PCBs  $\geq 50$  ppm at both locations (82,900 and 80.1 ppm, respectively). In addition, the metal frame pieces that cross each window pane are constructed with a silver-gray caulking containing PCBs at 52.9 ppm (observed at the cross pieces of the interior and exterior construction). The metal frame to glass window pane interior glazing sealant was sampled and reported with PCBs  $> 1$  and  $< 50$  ppm at operable windows (3.91 ppm) and inoperable windows (30 ppm); for both window types, the same glazing sealant was observed on the interior and exterior of the pane. Refer to the photograph below for typical locations of the sealant samples and PCB concentrations.



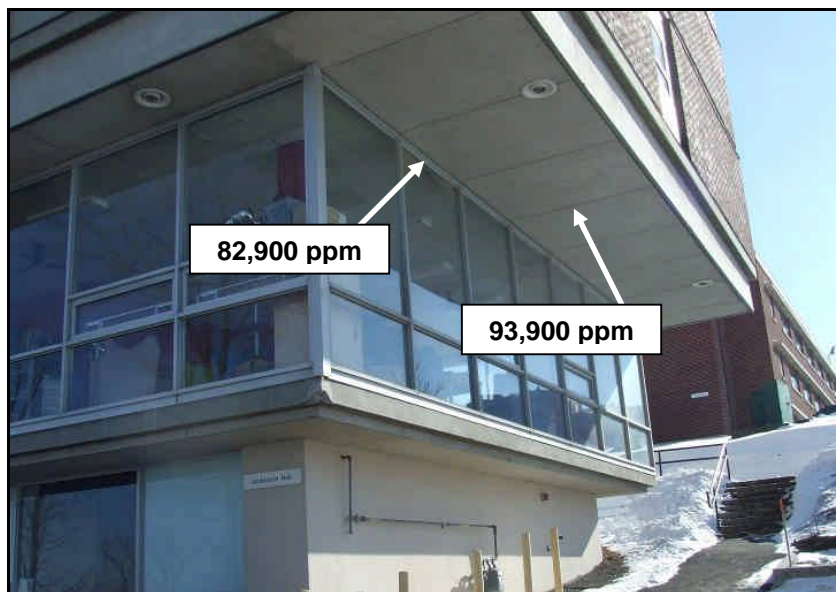
## 2.2.2 Anderson Hall – East / Northeast Windows

The east and northeast window walls were replaced with metal panel walls during a 2001 renovation project. Neither the upper or lower perimeter caulking (where the metal panel joins the concrete) were able to be sampled due to accessibility issues; however, it has been conservatively assumed that any sealants present at these locations may contain PCBs  $\geq 50$  ppm. A sample of the “newer” caulking within the window components (at the edge of the metal frame) was collected and detected PCBs at 7.47 ppm. Surface wipe samples collected from a metal panel and a metal window frame were reported as non-detect ( $< 0.5$  micrograms per 100 square centimeters [ $\mu\text{g}/100\text{ cm}^2$ ]) and at  $0.6\text{ }\mu\text{g}/100\text{ cm}^2$ , both below the unrestricted use cleanup level of  $10\text{ }\mu\text{g}/100\text{ cm}^2$  for non-porous surfaces.



## 2.2.3 Anderson Hall – Concrete Overhang and Lower Perimeter

A concrete overhang is present around all four sides of Anderson Hall immediately above the section of windows scheduled for replacement. The overhang is approximately 2.5 feet wide on the north and south sides of the building, which are each approximately 137 feet long, and the overhang is approximately 6.5 feet wide on the east and west sides of the building, which are each approximately 37 feet long. The concrete overhang is not scheduled for removal; however, two caulked joints in direct contact with the windows scheduled for removal may be disturbed during the work. As shown in the photo below, one caulked joint is present at the top horizontal joint of the window bank perimeter (metal window frame to concrete joint) for a total approximate quantity of 350 linear feet (l.f.). A second type of caulked joint is present between concrete panels (concrete to concrete joint) perpendicular to the perimeter joint for a total approximate quantity of 220 l.f. (46 x 2.5-foot overhang seams and 16 x 6.5-foot overhang seams).



Samples of this caulking were collected and indicated that these joints contain PCBs at concentrations of 82,900 ppm in sample A-003 and 93,900 ppm in sample A-004. As such, the caulking would be classified as PCB bulk product waste upon removal from the building.

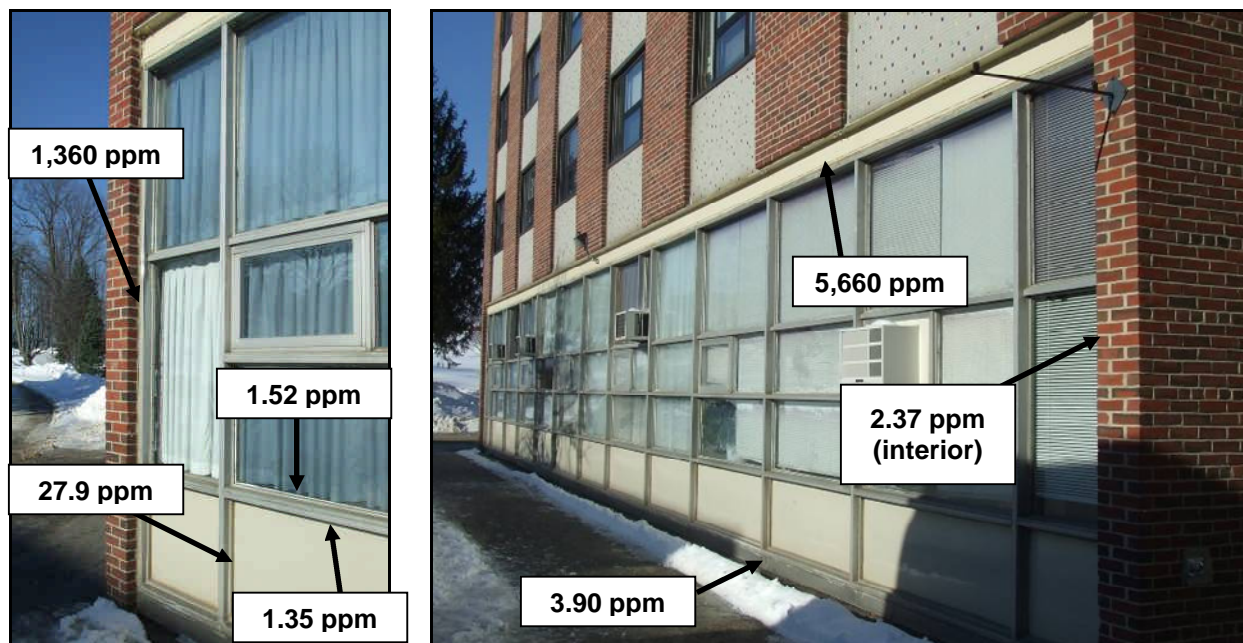
Samples collected in February 2011 indicated that the concrete adjacent to the two types of caulked joints described above has been impacted with PCBs at a concentration of 43.4 ppm within one inch of the A-003 joint and at a concentration of 149 ppm within one inch of the A-004 joint. Because these results exceeded the low-occupancy cleanup criteria of 25 ppm, samples collected at a distance of 5-6 inches from the same joints were analyzed and reported PCB results of 3.16 ppm (5-6 inches from the A-004 joint) and 0.769 ppm (5-6 inches from the A-003 joint).

## 2.3 SITE CHARACTERIZATION RESULTS – UPTON HALL

Characterization samples were collected from suspect caulking materials observed at representative joint types scheduled for disturbance during upcoming renovation activities at Upton Hall. If a  $\geq 50$  ppm PCB source material was determined to be present, adjacent material samples were collected where those adjacent materials were scheduled to remain in place to determine a remediation approach for that material. The analytical data presented in the following sections is summarized on Table 2-1, and the locations are depicted on a building elevation plan provided as Figure 2-2.

### 2.3.1 Upton Hall – South Elevation First Floor

Certain materials tested at this location were reported with PCBs  $\geq 50$  ppm. The caulking present at the side vertical metal frame to brick masonry joints contains PCBs  $\geq 50$  ppm (1,360 ppm), and the caulking present at the upper horizontal metal frame to steel beam joint contains PCBs  $\geq 50$  ppm (5,660 ppm). Other caulking materials sampled at this location were reported with PCBs  $> 1$  and  $< 50$  ppm, including the exterior window glazing sealant, the exterior metal frame to metal panel caulking, an exterior caulking present between two adjoining pieces of the metal frames, the exterior caulking at the lower horizontal metal flashing to masonry, and the interior metal frame to brick masonry caulking.



Because a source material (PCBs  $\geq 50$  ppm) was present in direct contact with adjacent brick masonry materials scheduled to remain in place along the two vertical edges of the window bank, a characterization sample was collected from the brick at an interval of 2 – 3.5 inches from the caulked joint. This sample was reported with a PCB concentration below 1 ppm (0.162 ppm), indicating that PCB impacts to the adjacent exterior brick is limited to at least the nearest 2 inches from the caulked joint.

### 2.3.2 Upton Hall – North Elevation Full Length Windows

The window and metal panel wall scheduled for removal in this area covers four floors (i.e., nearly the full height) of the building. These floors are referred to as the garden level (the card office), the first floor (a portion of the health services area), the second floor (the laundry room), and the third floor (the 3 ½ Classroom). Certain materials tested at this location were reported with PCBs  $\geq 50$  ppm.

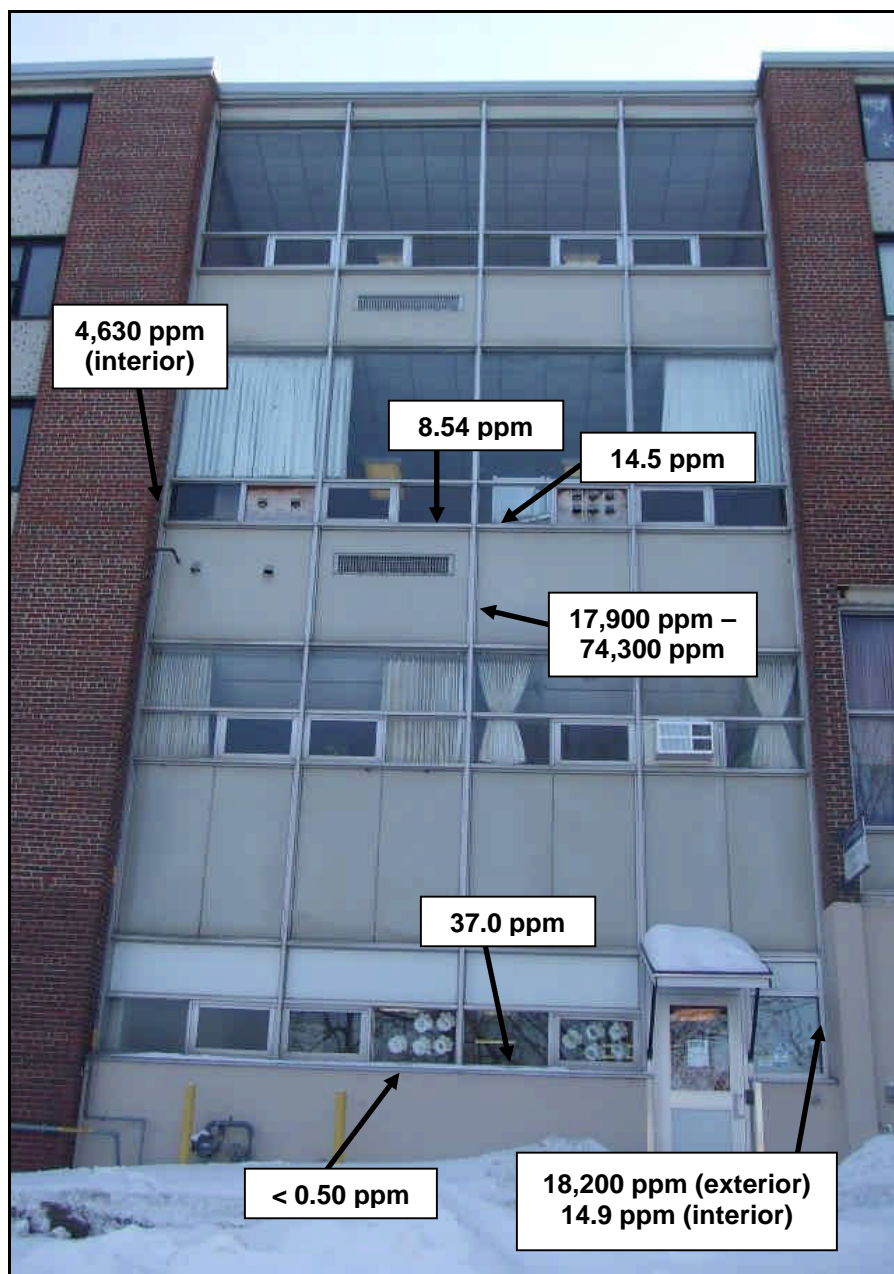
#### Exterior Materials

Exterior caulking samples indicate that PCBs are present at concentrations  $\geq 50$  ppm on the metal frame to metal panel joints as well as the outer vertical metal frame to masonry joints. Certain caulking materials were reported with PCBs  $> 1$ ,  $< 50$  ppm, including the metal frame to window pane joint glazing sealant and the metal frame to metal window sill caulking.

Because a source material (PCBs  $\geq 50$  ppm) was present in direct contact with adjacent brick and concrete masonry materials scheduled to remain in place along the two vertical edges of the window bank, characterization samples were collected from the brick and concrete on either side of the window bank. The east side of the window bank is adjacent to brick for the full height of the construction; the west side of the window bank is adjacent to concrete at the garden level and brick at the upper elevations. These results are presented below.



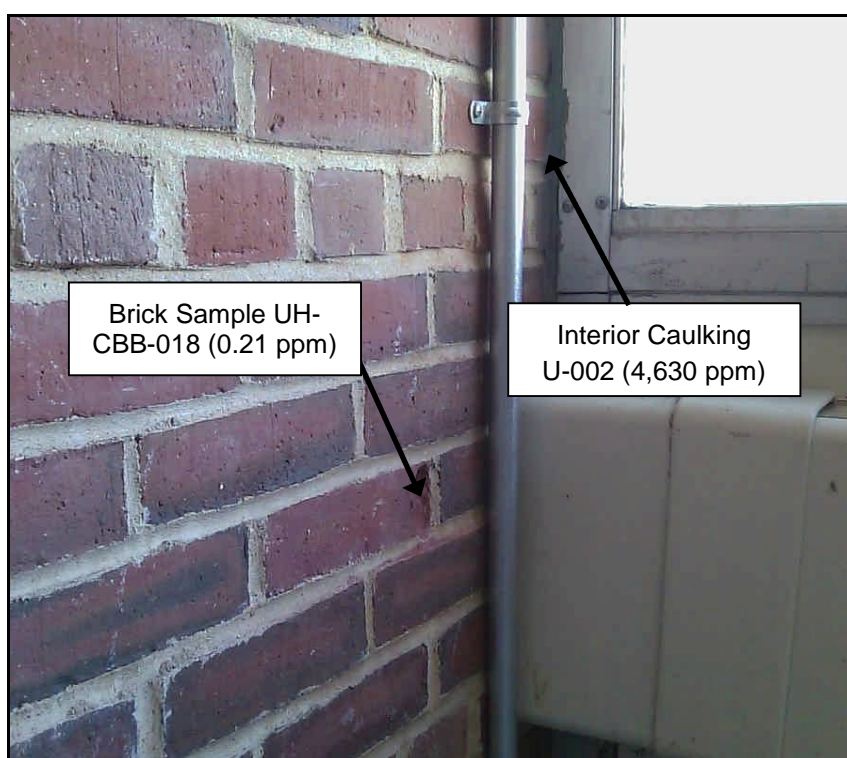
- Brick samples were collected at intervals of 0–1 inch and 15–16 inches (just before the brick's right angle) from the caulked joint. The 0-1 inch sample was reported with a PCB concentration of 8.30 ppm. The 15-16-inch sample reported PCBs at 0.180 ppm.
- A concrete sample was collected at a distance of 16-17 inches from the caulked joint on the garden level west side, just before the corner of the column. The result was reported just below the high occupancy cleanup level of 1 ppm (1.09 ppm), indicating that PCB impacts to the exterior concrete adjacent to the vertical joint is limited to the nearest 16 inches from the caulked joint (i.e., the perpendicular section of concrete at this level).



### Interior Materials

An interior caulking sample indicated that PCBs are present  $\geq 50$  ppm at the metal frame to brick masonry joints present on the east and west side of the window bank on the second and third floors of the building. No interior caulking was observed at these joint types on the first floor. A newer repair caulking was observed at this joint in the card office (garden level) which was reported with PCBs  $> 1$  and  $< 50$  ppm at 14.9 ppm.

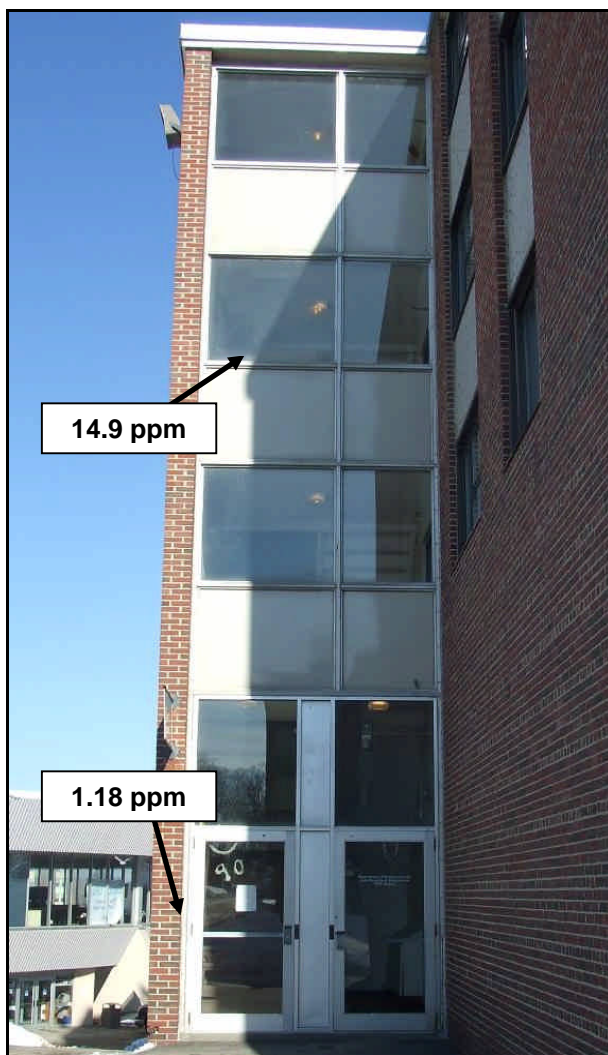
Because a source material (PCBs  $\geq 50$  ppm) was present in direct contact with interior adjacent brick scheduled to remain in place along the two vertical edges of the window bank on the second and third floors, a characterization sample was collected from the brick at a distance of 9-10 inches from the caulked joint (after the first full brick width). This sample was reported with PCBs at 0.211 ppm, indicating that PCB impacts to the brick adjacent to the vertical joint is limited to the nearest full brick width from the caulked joint.



### **2.3.3 Upton Hall – Southwest Stair Elevation**

No materials tested at this location were reported with PCBs  $\geq 50$  ppm. The sample of caulking present at the exterior vertical metal frame to brick masonry joint reported PCBs at 1.18 ppm. Only one other caulking material was reported with PCBs  $> 1$  and  $< 50$  ppm, which was the interior glass pane glazing sealant (metal frame to glass joint) with PCBs at 14.9 ppm. Other caulking materials sampled at this location were reported as non-detect for PCBs (below the laboratory's minimum reporting limits) or below 1 ppm, including the exterior window glazing sealant, the exterior metal frame to metal panel caulking, an exterior repair caulking beside the door frame, the interior metal frame to brick masonry caulking, and the interior metal frame to metal panel caulking.

Because the majority of the tested materials appear to be original to the building with only minor repair caulking observed and no source material containing PCBs  $\geq 50$  ppm found to be present, materials containing PCBs  $> 1$  ppm have been considered Excluded PCB Products under 40 CFR 761.



#### 2.3.4 Upton Hall – North Elevation First Floor

No materials tested at this location were reported with PCBs  $\geq 50$  ppm. The sample of caulking present at the vertical metal frame to metal panel joint reported PCBs at 1.23 ppm. Other caulking materials sampled at this location were reported as non-detect for PCBs (below the laboratory's minimum reporting limits) or below 1 ppm, including the exterior window glazing sealant, the exterior metal frame to brick vertical joint, and the exterior caulking present between two adjoining pieces of the metal frames. It is noted that one joint type has not yet been sampled for PCBs at this location due to access limitations (the upper horizontal joint between the metal frame and the steel beam); a sample will be collected at this joint before the caulking or adjacent material is sent off-site for disposal.

Because the majority of the tested materials appear to be original to the building with only minor repair caulking observed and no source material caulking containing PCBs  $\geq 50$  ppm was found to be present, materials containing PCBs  $> 1$  ppm have been considered Excluded PCB Products under 40 CFR 761.



## 2.4 ADJACENT GROUND SURFACES

Two samples were collected from grass-covered soils along the north side of Upton Hall at locations 1.5 feet from the building foundation in March 2010. The two samples were reported with PCBs at 2.88 and 3.55 ppm, respectively.

Additional soil characterization samples were not collected during follow-up characterization activities in February 2011 due to weather limitations. Given the project timing, work associated with the windows and building is proposed to be performed before any PCB remediation work that may be needed for adjacent soils. It is planned that an addendum to this Plan for subsequent EPA Approval will be completed for site soils adjacent to Anderson and Upton Halls.

## 2.5 DATA USABILITY ASSESSMENT

The data collected by Woodard & Curran was submitted to a third party (Data Check, Inc. of New Durham, NH) for data validation to evaluate the usability of the site characterization data. This data was validated by a review of sample custody, holding times, surrogates, method blanks, field blanks, matrix spike/matrix spike duplicates, laboratory control samples, and laboratory and field duplicates. The assessment was performed in general conformance with USEPA Region I Guidelines and the Quality Control Guidelines.

Typical QA backup information was not available for the samples collected by NTC and Summit; therefore, a standard quality control review was not performed for these data sets. Where these sample locations were confirmed in the field, the data was either accepted without qualification or was independently verified by collecting a follow-up sample if the initial result seemed inconsistent with the overall data set. Where these sample locations could not be



confirmed, additional samples were collected from representative locations to evaluate the collective data set. A review of the available documentation of sample collection methods, laboratory analytical methods, and sample hold times indicated that the data could be used in conjunction with the more recent data set to develop an overall comprehensive data to represent building conditions.

A summary of the data usability assessment for the recently collected data is presented below:

- Some samples were analyzed at dilutions due to the high concentration of PCBs present in the samples and/or due to sample matrix. Elevated quantitation limits are reported in these samples as a result of the dilutions performed.
- Two duplicate samples were collected and submitted to the laboratory as part of the field QA/QC procedures. The relative percent difference between primary sample UH-CBK-012 and duplicate sample UH-CBKD-013 met acceptance criteria; however, for the primary and duplicate pair of UH-CBK-030 and UH-CBKD-031, PCB-1254 was not detected in sample UH-CBKD-031, but was detected at greater than two times the reporting limit in sample UH-CBK-030. As a result, the detected and non-detected PCB-1254 results were estimated (J, UJ) in the samples collected on the same field day (UH-CBK-028, UH-CBK-029, UH-CBK-030, UH-CBKD-031, and UH-CBK-032) due to the field duplicate precision results.
- The relative percent difference between the column results for all detected PCBs met acceptance criteria ( $\leq 25\%$ ) with the following exceptions: AH-CBK-010, UH-CBC-016, UH-CBK-030, and UH-CBK-032. These results were qualified as estimated (J).
- Accuracy of the analytical data was assessed by reviewing recoveries for surrogates, laboratory control samples (LCS), and laboratory control sample duplicates (LCSD). All surrogate recoveries met acceptance criteria or were diluted out. The LCS and LCSD met acceptance criteria. No qualifications were applied to the data.
- Representativeness of the data was evaluated qualitatively utilizing site use information and sampling data. Samples were extracted and analyzed within allowable holding times. Consistent procedures and laboratory analysis of the data were achieved. Sample containers were packed on ice and were accompanied by complete chain of custody forms from the time of sample collection until laboratory delivery. PCBs were not detected in the laboratory method blank analysis, indicating that there were no interferences introduced at the laboratory during sample analysis.
- The data packages were reviewed to ensure that all sample and associated quality assurance results were available. The completeness review indicated that all samples were analyzed and all quality control results were available to complete the data validation process.

Based on a review of the collective site data set, the data adequately represents the materials tested, and the samples presented in this plan are considered usable for the purposes of characterizing PCB-affected media in accordance with 40 CFR Part 761.

**Table 2-1**  
**Characterization Sample Summary - Anderson and Upton Halls**  
**University of Southern Maine - Gorham**

Location	Building Materials To Be Removed	Building Materials To Remain	Sample Distance from Joint (inches)	Sample ID	Sample Date	Sample Description	Reporting Limit	Total PCBs	Qualifier
Anderson Hall North, South, and West Windows First Floor	Exterior Caulking at Concrete Overhang		N/A	A-003	03/01/10	Gray caulking; side of building over emergency exit; metal window frame to concrete overhang (Summit Environmental)	1,000	<b>82,900</b>	
				A-004	03/01/10	Gray caulking; south side of building over emergency exit; concrete to concrete joint of overhang (Summit Environmental)	1,000	<b>93,900</b>	
	Exterior Caulking in Direct Contact with Frames and Components		N/A	AH-CBK-010	02/03/11	Exterior grey caulking from joint beneath metal flashing on lower concrete surface. Beneath first window from west corner on south building face.	3.14	<b>80.1</b>	J
				A-001	03/01/10	Exterior grey caulking from west wall metal to metal frame joint beneath window (Summit Environmental)	0.500	ND	
	Interior Caulking in Direct Contact with Frames and Components (including glazing sealants)		N/A	AH-CBK-001	02/03/11	Metal frame : window pane glazing at inoperable window on north face. West edge of 8th window from west end. Material is a light gray material present on both inside & outside of pane.	3.80	30.0	
				AH-CBK-002	02/03/11	Metal frame : window pane glazing at operable window on south face. First operable window west of front lobby vestibule. Material is dark grey and crumbly on outer surface, a little softer and white on the inside, beneath the surface. Same glazing on pane exterior.	0.360	3.91	
				AH-CBK-003	02/03/11	Metal frame : metal frame sealant at 90° corners. Silvery metallic brittle caulking, minimal volume, able to be sampled only where it extrudes from frames. Visually same as analogous exterior cross pieces.	13.9	<b>52.9</b>	
		Exterior Concrete Overhang	0-1	AH-CBC-004	02/03/11	Concrete samples beside perpendicular joint are at same location as A-004, between windows 6 & 7 from west edge on south face. Samples are 28" parallel to building face, 3" from outer edge. Note: a metal framing piece separates caulking from concrete. Concrete panel is <1" thick.	9.08	<b>149</b>	
			5-6	AH-CBC-005	02/03/11		0.160	3.16	
			0-1	AH-CBC-006	02/03/11	At A-003 type joint (upper perimeter of window frame to concrete overhang), 6" east of 5th window. Concrete here is also separated from caulking by metal framing. Concrete panel is approximately 1/2" thick.	1.65	43.4	
			5-6	AH-CBC-007	02/03/11		0.033	0.769	
Anderson Hall	Exterior Caulking on Metal Trim		N/A	A-002	03/01/10	Brown caulking; east side metal to metal window frame - in the 2001 construction area (Summit Environmental)	0.5	7.47	
East and Northeast Windows / Metal Panel Wall	Metal Panels Not in Direct Contact with Caulking		N/A	AH-CWM-008	02/03/11	East wall exterior metal panel surface hexane wipe sample, 10x10 cm. Lower portion of southernmost panel. 47" from south edge of building, 31" above bottom of concrete overhang.	0.5	ND	
First Floor	Windows Not in Direct Contact with Caulking		N/A	AH-CWM-009	02/03/11	East wall exterior metal window frame, south vertical edge on southernmost window, bottom 1.0 - 16.5 inches in 1-inch width.	0.5	0.6	

**Table 2-1**  
**Characterization Sample Summary - Anderson and Upton Halls**  
**University of Southern Maine - Gorham**

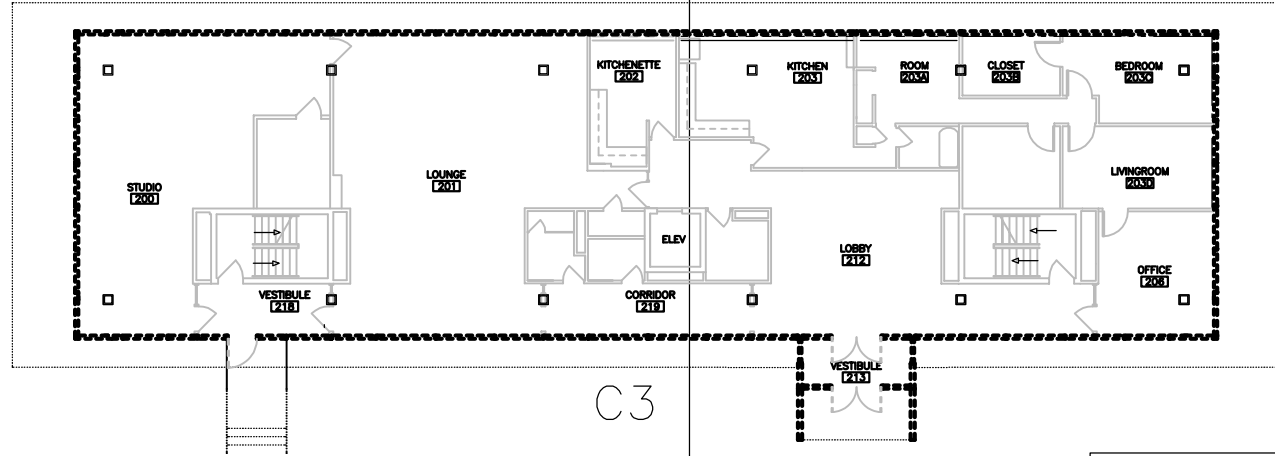
Location	Building Materials To Be Removed	Building Materials To Remain	Sample Distance from Joint (inches)	Sample ID	Sample Date	Sample Description	Reporting Limit	Total PCBs	Qualifier
Upton Hall Southwest Stair Elevation	Exterior Caulking in Direct Contact with Masonry		N/A	U-011	03/01/10	White over gray caulking; stair tower exterior; metal door frame to brick vertical joint (Summit Environmental)	0.500	ND	
				UH-CBK-024	02/03/11	Same location as former U-011, sample just above. Off-white exterior over grey interior at frame : brick.	0.200	1.18	
	Exterior Caulking in Direct Contact with Frames and Components		N/A	UH-CBK-022	02/03/11	Metal frame : glass pane glazing on lower horizontal of 1st window, over west side door. Pliable off-white caulking over black gasket material. Not visually similar to previous samples.	0.300	1.01	
				UH-CBK-023	02/03/11	Metal panel : metal frame joint, 2nd story west metal panel. White pliable caulking, no grey material visible underneath as outside the laundry room. Center vertical of west panel.	0.330	ND	
				UH-CBK-025	02/03/11	Metal frame : metal door trim, repaired joint parallel to U-011. Caulking abuts frame, but not the door. Very pliable and apparently new(ish) grey repair caulking.	0.230	ND	
	Interior Caulking		N/A	U-006	03/01/10	Gray caulking; 3rd floor stairwell; interior; metal to concrete vertical joint (Summit Environmental)	0.500	ND	
				UH-CBK-020	02/03/11	Metal frame : metal panel, 3rd level terrace. Caulking gray/white, semi-brittle, somewhat pliable, extruding from under frame, west edge of panel.	2.01	ND	
				UH-CBK-021	02/03/11	Metal frame : glass pane, 3rd level terrace, deteriorated glazing.	1.02	14.9	
Upton Hall South Elevation First Floor	Exterior Caulking in Direct Contact with Masonry		N/A	U-007	03/01/10	Off-white over gray caulking; south wall exterior metal window frame to brick vertical joint; west end (Summit Environmental)	0.500	<b>1,360</b>	
				UH-CBK-026	02/03/11	Upper horizontal joint above south window bank beneath steel beam. Appears similar to other exterior caulk with grey interior and off-white exterior. Above 6th window from west. Appears to be original material in place (along with other various repair caulking	274	<b>5,660</b>	
				UH-CBK-028	02/04/11	Lower horizontal perimeter flashing joint beneath windows. Caulking is silver, pliable.	0.260	3.90	
	Exterior Caulking in Direct Contact with Frames and Components		N/A	U-008	03/01/10	Gray caulking; south wall exterior metal frame to metal wall panel; vertical joint (Summit Environmental)	0.500	1.35	
				U-009	03/01/10	Gray caulking; south wall exterior metal frame to metal frame vertical joint (Summit Environmental)	0.500	27.9	
				U-010	03/01/10	South wall exterior metal to glass glazing sealant; horizontal joint (Summit Environmental)	0.500	1.52	
		Exterior Masonry (Brick)	End of first brick (before corner)	UH-CBB-027	02/03/11	First floor south window bank, west edge bricks beside former sample U-007. Total brick width here = 4". Sample before right angle at 2-3.5" from joint, 18" above ground surface.	0.033	0.162	
	Interior Caulking		N/A	U-001	03/01/10	Eastern edge of waiting room window bank, 1st floor; metal window frame to brick vertical joint (Summit Environmental)	0.500	2.37	
Upton Hall North Elevation First Floor	Exterior Caulking in Direct Contact with Masonry		N/A	U-013	03/01/10	Caulking exterior off-white, interior grey. North wall west of Police Dept. metal frame to brick vertical joint (Summit Environmental)	0.500	ND	
				UH-CBK-029	02/04/11	Replicate of U-013. Caulking exterior off-white, interior grey.	0.300	ND	UJ
	Exterior Caulking in Direct Contact with Frames and Components		N/A	U-012	03/01/10	Gray caulking; north wall west of Police Dept; metal frame to metal frame (Summit Environmental)	0.500	ND	
				UH-CBK-030	02/04/11	Metal frame : metal panel caulking at westernmost panel on windows. Bottom of horizontal joint, off-white, very elastic, pliable. Same all panels.	0.300	1.23	J
				UH-CBK-032	02/04/11	Metal frame : glass pane at same western window as UH-CBK-030. Caulking is thin white bead, pliable, intact. Same on all panes.	0.330	0.819	J

**Table 2-1**  
**Characterization Sample Summary - Anderson and Upton Halls**  
**University of Southern Maine - Gorham**

Location	Building Materials To Be Removed	Building Materials To Remain	Sample Distance from Joint (inches)	Sample ID	Sample Date	Sample Description	Reporting Limit	Total PCBs	Qualifier
Upton Hall  North Elevation Card Office / Laundry Room Window Panel Column	Exterior Caulking in Direct Contact with Masonry		N/A	PCB-15	01/05/10	Card office window horizontal joint below sign; gray caulking at metal shelf to concrete wall (NTC)	0.500	172	
				PCB-16	01/05/10	Card office window vertical joint below sign; off-white over gray caulking; metal frame to concrete wall (NTC)	0.500	18,200	
				U-015	03/01/10	Tan caulking at north wall by card office; metal flashing at junction to concrete knee wall below windows; horizontal joint (Summit Environmental)	0.500	ND	
	Exterior Caulking in Direct Contact with Frames and Components		N/A	U-003	03/01/10	Beige caulking; 2nd floor laundry room exterior; metal frame to metal panel vertical joint (Summit Environmental)	500	17,900	
				U-004	03/01/10	Gray glazing; window below metal grill; 2nd floor laundry room exterior; metal frame to glass horizontal joint (Summit Environmental)	0.500	8.54	
				U-005	03/01/10	White caulking; 2nd floor laundry room exterior metal frame to metal window sill horizontal joint (Summit Environmental)	0.500	14.5	
				UH-CBK-012	02/03/11	Metal panel : metal frame - vertical caulked joint, westernmost panel, western joint, first floor (above garden level). Replicating sample type U-003. Caulking is in two layers: off-white surface, grey interior.	2,765	59,900	
				UH-CBK-019	02/03/11	Metal frame : metal panel in 3-1/2 classroom. West edge of eastern panel below operable window. Caulking is in two layers: off-white surface, grey interior.	8,778	74,300	
		Exterior Masonry (Brick)	Just before first 90° corner	UH-CBB-014	02/03/11	0-1" from caulked joint at inner corner, 33" above concrete knee-wall shelf at east edge of card office window bank	0.660	8.30	
			Beyond first 90° corner	UH-CBB-015	02/03/11	16" from caulked joint at inner corner, just before first 90-degree corner, 31" high at east edge of card office window bank.	0.050	0.180	
		Exterior Masonry (Concrete)	Just before first 90° corner	UH-CBC-016	02/03/11	16-17" from caulked joint, 16-17" above knee-wall, 1-2" from outer corner of concrete column on west edge of card office windows.	0.066	1.09	J
	Interior Caulking		N/A	UH-CBK-017	02/03/11	Caulking in Card Office ("garden level"). Elastic, pliable, off-white, bottom horizontal metal frame to wooden shelf. All window frame to wall & shelf joints in this room are the same material. Sample collected to west of north entrance doorway.	0.630	14.9	
				U-002	03/01/10	Dark gray caulking at 2nd floor laundry room; metal frame to brick joint; west edge vertical (Summit Environmental)	50.0	4,630	
				U-2-001	03/08/10	North wall center inside of window component (glazing remnant in metal frame after glass pane removal) (Summit Environmental)	0.500	37.0	
		Interior Walls	After first brick width	UH-CBB-018	02/03/11	Laundry Room (2nd floor), brick wall sample, after first full brick, west wall below sample U-002, 25" above ground surface, 9-10" south of caulked joint.	0.033	0.211	
Upton Hall Soil North Elevation			N/A	UH-S-001	03/04/10	East end of north elevation; 0-2" below ground surface, 1.5 feet from wall	--	3.55	
				UH-S-002	03/04/10	East end of north elevation; 2-4" below ground surface, 1.5 feet from wall	--	2.88	

Notes:

1. Samples collected in February 2011 (Woodard & Curran) were extracted by USEPA Method 3540C (Soxhlet) and analyzed by USEPA Method 8082.
2. Samples collected in March 2010 (Summit Environmental) were extracted by USEPA Method 3550B and analyzed by USEPA Method 8082.
3. Samples collected in January 2010 (NTC) were analyzed by USEPA Method 8082.
4. Bulk sample results are presented in milligrams per kilogram (mg/kg); wipe sample results are presented in micrograms per 100 square centimeters (ug/100cm2).
5. PCB results were reported as Aroclor 1254 with the exception of sample UH-CBK-028, which was reported as Aroclor 1260.
6. ND = Not detected above laboratory's minimum reporting limit, as indicated.
7. J or UJ = Result is qualified as estimated based on data validation.



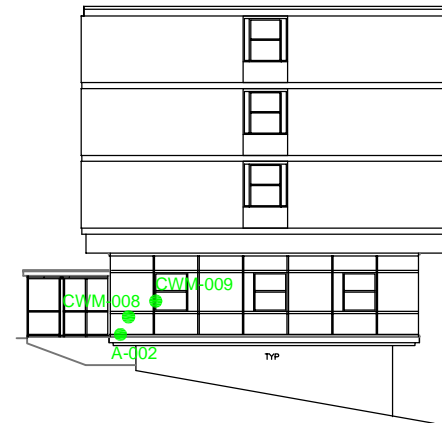
DEMO PLAN—FIRST FLOOR  
1" = 300' REF: NA



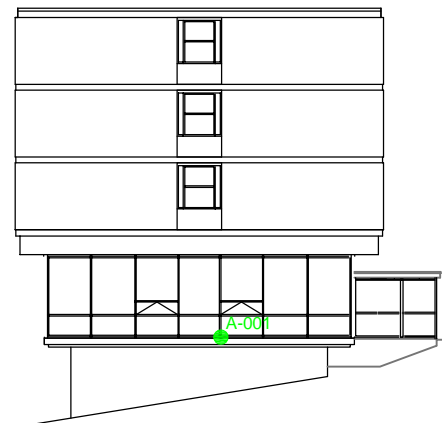
SOUTH ELEVATION—DEMO  
1" = 300' REF: C2/A05.1



NORTH ELEVATION—DEMO  
1" = 300' REF: C2/A05.1



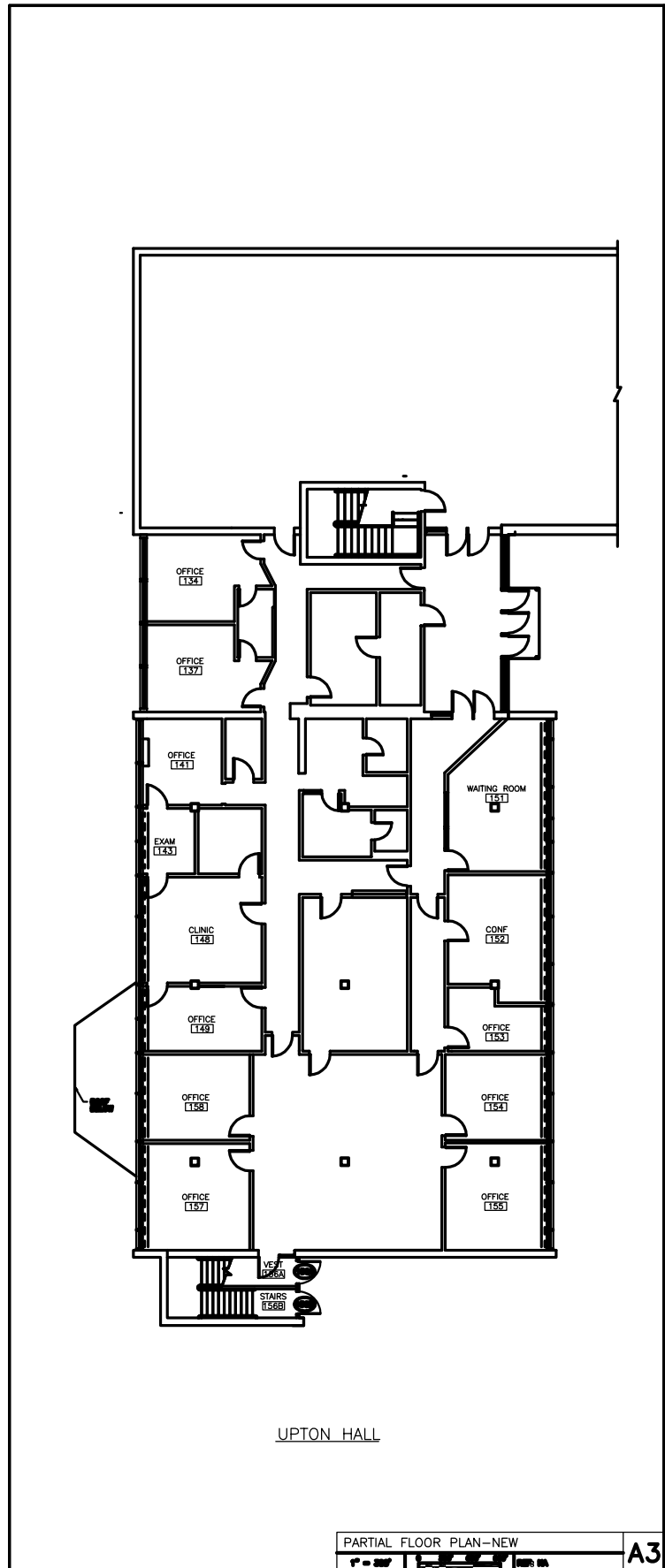
EAST ELEVATION—DEMO  
1" = 300' REF: C2/A05.1



WEST ELEVATION—DEMO  
1" = 300' REF: C2/A05.1

**LEGEND**  
● A-001 EXTERIOR SAMPLE LOCATION  
● CBK-001 INTERIOR SAMPLE LOCATION

NOTES:  
1. FIGURE ADAPTED FROM PAGE A05.1  
DEMO PLAN AND ELEVATIONS ANDERSON  
HALL FROM THE USM GORHAM GLAZING  
REPLACEMENT PROJECTS NOVEMBER 16,  
2009 CONSTRUCTION DOCUMENTS BY  
HARRIMAN ARCHITECTS + ENGINEERS.



- LEGEND**
- U-011 ● EXTERIOR SAMPLE LOCATION
  - U-006 ● INTERIOR SAMPLE LOCATION

NOTES:

1. FIGURE ADAPTED FROM PAGE A20.2  
FLOOR PLAN AND EXTERIOR ELEVATIONS  
UPTON HALL FROM THE USM GORHAM  
GLAZING REPLACEMENT PROJECTS  
OCTOBER 28, 2009 CONSTRUCTION  
DOCUMENTS BY HARRIMAN ARCHITECTS +  
ENGINEERS.

# FLOOR PLAN AND EXTERIOR ELEVATIONS UPTON HALL

UNIVERSITY OF SOUTHERN MAINE  
GORHAM, MAINE

REMEDATION PLAN

JOB NO: 224164  
DATE: FEB 2011  
SCALE:

FIGURE 2-2

DESIGNED BY: AW  
DRAWN BY: CH  
CHECKED BY:

### 3. REMEDIATION PLAN

The remediation plan proposed herein has been prepared in accordance with 40 CFR 761.61(a), 40 CFR 761.61(c), and 40 CFR 761.62. Interior and exterior caulking containing PCBs  $\geq 50$  ppm will be removed for off-site disposal in accordance with 40 CFR 761.62; PCB impacted building materials scheduled for removal as part of the planned renovation work will be segregated for disposal based on the classification of the materials as PCBs  $\geq 50$  ppm, PCBs  $> 1$  and  $< 50$  ppm, or general construction debris not regulated under 40 CFR 761; and, PCB impacted building materials not scheduled for removal will be managed in place via a containment barrier approach.

This section includes details of the site preparations and controls, proposed remediation activities for each media, verification sampling plans, waste storage and disposal plans, and recordkeeping requirements.

#### 3.1 SITE PREPARATION AND CONTROLS

Prior to initiating remedial activities, the following site controls will be implemented:

- A Health & Safety Plan will be developed specific to the work activities. Workers will follow applicable Federal and State regulations regarding the work activities, including but not limited to OSHA regulations, fall protection standards, respiratory protection, ladder/scaffolding safety, personal protective equipment, etc.;
- Additional notifications and plans required for the work activities will be prepared and submitted for approval, as needed (EPA Approval notices and submittals, certifications, etc.);
- Access to the active work areas will be controlled in a manner determined by the contractor to meet project requirements and access needs (e.g., fencing, barriers, signage, etc.);
- Access to the removal areas will be by appropriate staging, scaffolding, and/or mechanical lifts. Caulking, window, and metal panel removal areas will be contained using polyethylene sheeting or equivalent to control any fugitive dust or debris generated from the removal activities. Wet wiping and water misting will be used as a dust suppressant as appropriate;
- Ground cover (water impervious membrane or equivalent) will be placed along the building walls to contain any debris or building materials removed during the work;
- Powered tools will be equipped with appropriate tool guards and dust/debris collection systems (i.e., HEPA filters). Wet wiping and vacuuming of tools and equipment in the work area will be performed at the completion of the work activity;
- To reduce dust levels and exposures to dust, a combination of engineered controls (e.g., work zone enclosures and equipment equipped with HEPA filters and dust controls) and personal protective equipment (PPE – respirators) will be implemented as part of the work activities; however, perimeter dust monitoring in the support zone to the active work area will not be performed as caulking and window removal is not typically a dust-generating activity;
- At the end of each work day any debris or materials collected on the ground cover sheeting will be placed in the appropriate waste containers;

- Following completion of the removal activities and verification that the cleanup levels have been met, site controls specific to the PCB disposal portion of the renovation will be dismantled. Wastes will be transported off-site for proper disposal as per Section 3.4.

## **3.2 REMEDIATION PLAN FOR PCB-CONTAINING MEDIA – ANDERSON HALL**

The window bank present around all four sides of the second floor of Anderson Hall is scheduled for removal and replacement. This includes the metal frames and glass window panes that comprise the north, west, and south sides of the building (original construction), and includes the metal panels, frames, and window panes that comprise the east and northeast sides of the building (constructed during a 2001 renovation). The renovation work does not include the removal of any materials beyond the window bank, including the lower concrete perimeter or the upper concrete overhang in direct contact with the windows.

The following sections present the remediation plan proposed for the clean-up and disposal of each of the identified PCB-containing media at Anderson Hall. Each section describes how each waste stream will be managed relative to its PCB concentrations.

### **3.2.1 Anderson Hall – North / West / South Windows**

Based on the scope of the window project (complete removal of the windows) and the presence of caulking containing PCBs  $\geq 50$  ppm at joints integral to the metal frame components, the remedial action will include the removal of all components of the window bank, including glass panes and metal frames, as PCB waste  $\geq 50$  ppm; no material segregation will be performed.

It is assumed that approximately 2 roll-off containers of material may be generated for disposal from this location (280-foot perimeter x 9.5-foot height x 0.2-foot (estimated) average thickness = 535 cubic feet or approximately 20 cubic yards of material).

Verification of this task will consist of an inspection to confirm that all components of the window bank have been removed. No verification samples will be collected as no components of this window bank are scheduled to remain in place. The remedial approach for the remaining concrete in direct contact with the removed window bank is described in Section 3.2.3 below.

### **3.2.2 Anderson Hall – East / Northeast Windows**

Although the upper horizontal joint at this location has not been assessed due to the wall construction and access limitations, it has been conservatively assumed that the upper and lower horizontal metal frame components of this window panel bank may be in direct contact with concrete that was formerly in contact with original building caulking. As such, the upper and lower horizontal metal window/wall components in direct contact with concrete will be removed and segregated as  $\geq 50$  ppm PCB waste. The remaining metal panels, windows, and frame pieces not in direct contact with the existing concrete will be managed as standard demolition debris as supported by the characterization data.

It is assumed that approximately 5 cubic yards of material may be generated for disposal at this location (68-foot perimeter x 9.5-foot height x 0.2-foot (estimated) average thickness = 130 cubic feet or approximately 5 cubic yards).

Verification of this task will consist of an inspection to confirm that all components of the window bank have been removed. No verification samples will be collected as no components of this window bank are scheduled to remain in



place. The remedial approach for the remaining concrete in direct contact with the removed window bank is outlined in Section 3.2.3 below.

### 3.2.3 Anderson Hall – Concrete Overhang and Lower Perimeter Concrete

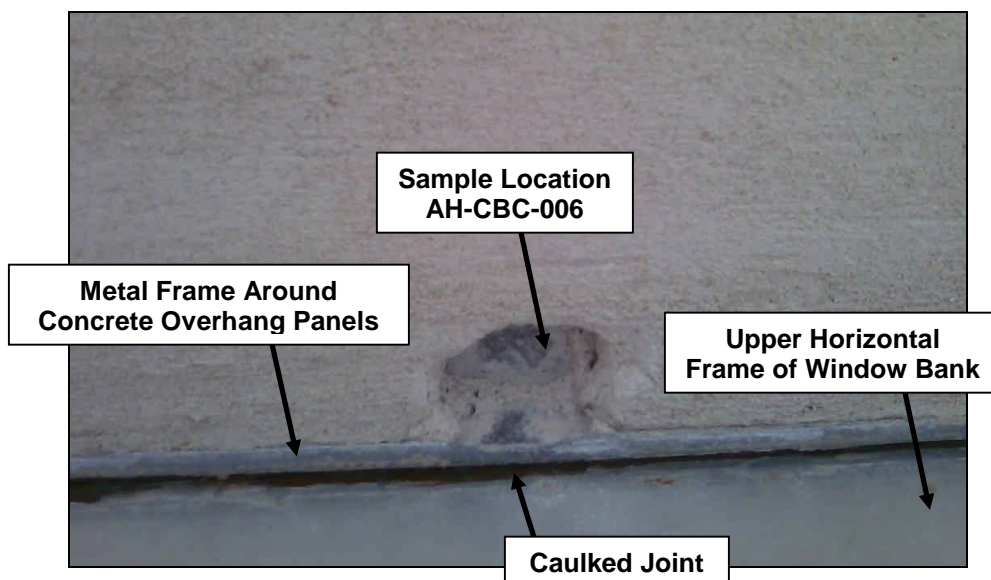
Structural concrete at the upper and lower perimeters of the Anderson Hall window bank has been impacted by PCBs. However, because concrete removal is not a feasible option for structural reasons, and decontaminating the concrete would not be feasible due to the practical limitations to applying liquid chemical cleaning techniques on vertical or overhanging building surfaces, a remedial option for containment in-place (encapsulation) is proposed as described below.

#### Concrete Overhang (Upper Perimeter)

The overhang above the windows around all four sides of the building has a total inner perimeter of approximately 350 linear feet and a total underside surface area of approximately 1,230 ft<sup>2</sup>. The concrete panels are bordered by a metal frame insert that is in direct contact with the caulking. The results of the concrete samples indicated that the extent of PCB impacts to a low-occupancy cleanup level of 25 ppm is limited to the concrete within 6 inches of the caulked joints. The extent of PCB impacts to the high-occupancy cleanup level of 1 ppm has not been fully delineated but extends beyond a distance of 6 inches from the joints perpendicular to the windows. Because it is aesthetically more desirable to extend the limits of the encapsulant to adjacent building construction features (i.e., the 90-degree angle at the edge of the overhang) than to apply a barrier to only those PCB-impacted sections within a measurable distance from the caulked joints, the entire underside of the overhang will be encapsulated with a liquid coating barrier system.

The remedial approach for the caulked joints will be implemented as follows:

- After caulking removal, the inner returns of the joints (metal frame components surrounding the concrete panels) will be decontaminated by cleaning with a citrus-based solvent product.
- Following caulking removal and metal cleaning, the joints will be visually inspected to verify that the caulking has been removed to the maximum extent practical.
- After visual verification, a new bead of caulking will be applied during the window installation phase of work.



The encapsulation approach for the underside surface of the concrete overhang and any vertical component of the concrete behind the upper perimeter of the window bank will be implemented as follows:

- No concrete baseline samples will be collected at this time as the existing data set of four concrete characterization samples will be used as baseline data for the liquid coating. In addition, there is no concrete present in direct contact with the caulking, as each concrete panel is bordered by a metal frame.
- Two coats of an acrylic coating such as Sikagard 550W or Sikagard 670W (or equivalent), will be applied directly to the concrete surface to create a containment barrier encapsulating the residual PCBs.
- After the liquid coating application, verification surface wipe samples will be collected from representative locations to evaluate the effectiveness of the encapsulation and establish a baseline for future monitoring. This will include sample collection at a frequency of one sample per 250 ft<sup>2</sup> of concrete surface, for a total of 5 locations or approximately 1 per side. Wipe samples will be collected using hexane-saturated gauze wipes in accordance with the standard wipe test method (40 CFR 761.123).
- Analytical results from the wipe samples of the acrylic coating will be evaluated to determine whether or not this task is complete as follows: Results  $\leq 1 \mu\text{g}/100 \text{ cm}^2$  will indicate the task is complete. Results  $> 1 \mu\text{g}/100 \text{ cm}^2$  will indicate that additional application of the coating is required on the surface, and additional verification wipe samples will be collected at an off-set location.

#### Concrete Slab Edge (Lower Perimeter)

The lower perimeter of the windows (i.e., the edge of the concrete slab beneath the window bank) has a total perimeter of approximately 350 linear feet and a total surface area of approximately 350 ft<sup>2</sup>. Once the window bank and metal frames are removed from the building, baseline concrete samples will be collected from the concrete in former direct contact with the caulking at the lower window perimeter at a frequency of 1 sample per 100 linear feet of concrete. Given a total perimeter of approximately 350 linear feet, this will include four concrete samples (one per building side).

If the results are  $\leq 1 \text{ ppm}$ , then no further activities will be conducted with regard to PCB remediation and the new windows will be installed. If the results are  $> 1 \text{ ppm}$ , an encapsulation approach similar to that presented for the concrete overhang would be implemented for this lower perimeter concrete wall before installing the new windows as follows:

- Two coats of an acrylic coating such as Sikagard 550W or Sikagard 670W (or equivalent), will be applied directly to the concrete surface to create a containment barrier encapsulating the residual PCBs.
- After the liquid coating application, verification surface wipe samples will be collected from representative locations to evaluate the effectiveness of the encapsulation and establish a baseline for future monitoring. This will include sample collection at a frequency of 1 sample per 100 linear feet, or, one per building side. Wipe samples will be collected using hexane-saturated gauze wipes in accordance with the standard wipe test method (40 CFR 761.123).
- Analytical results from the wipe samples of the acrylic coating will be evaluated to determine whether or not this task is complete as follows: Results  $\leq 1 \mu\text{g}/100 \text{ cm}^2$  will indicate the task is complete. Results  $> 1 \mu\text{g}/100 \text{ cm}^2$  will indicate that additional application of the coating is required on the surface, and additional verification wipe samples will be collected at an off-set location.

### 3.3 REMEDIATION PLAN FOR PCB-CONTAINING MEDIA – UPTON HALL

A bank of first floor windows on the southern building face, a floor of windows on the northern building face, a set of windows the full height of the northern face of the building, and a set of windows the full height of the building of the stairwell located on the western end of the building will be removed in their entirety and replaced. The planned renovation work does not include the removal of any masonry or other structural materials beyond the window banks.

The following sections present the remediation plan proposed for the clean-up and disposal of each of the identified PCB-containing media at Upton Hall. Each section describes how each waste stream will be managed relative to its PCB concentrations.

#### 3.3.1 Upton Hall – South Elevation First Floor

The scope of work involves the complete removal of the windows, metal panels, and metal frames at this location. Based on the concentrations of PCBs detected in the caulking, a waste segregation and disposal approach is proposed as outlined below:

- Remove the side vertical and upper horizontal caulking and the associated direct contact metal frame components of the window bank as PCB waste  $\geq 50$  ppm;
- Segregate out the glass panes, metal panels, internal metal frames, and associated caulking as PCB waste  $> 1$  and  $< 50$  ppm.

At this time, it is anticipated that this waste segregation approach will be implemented. However, if the contractor determines that material segregation is infeasible or highly labor intensive, all components of this window bank will be managed for disposal as PCB waste  $\geq 50$  ppm without waste stream segregation.

It is assumed that approximately 6.5 cubic yards of material may be generated for disposal at this location (78-foot width x 11-foot height x 0.2-foot (estimated) average thickness = 175 cubic feet or approximately 6.5 cubic yards).

Verification of this task will consist of an inspection to confirm that all components of the window bank have been removed. No verification samples will be collected as no components of this window bank are scheduled to remain in place. However, the building materials in direct contact with PCB caulking  $\geq 50$  ppm are subject to remedial actions. These materials include the horizontal steel beam along the top of the windows and adjacent brick walls on the vertical sides of the windows as described below.

##### 3.3.1.1 Exterior Adjacent Materials

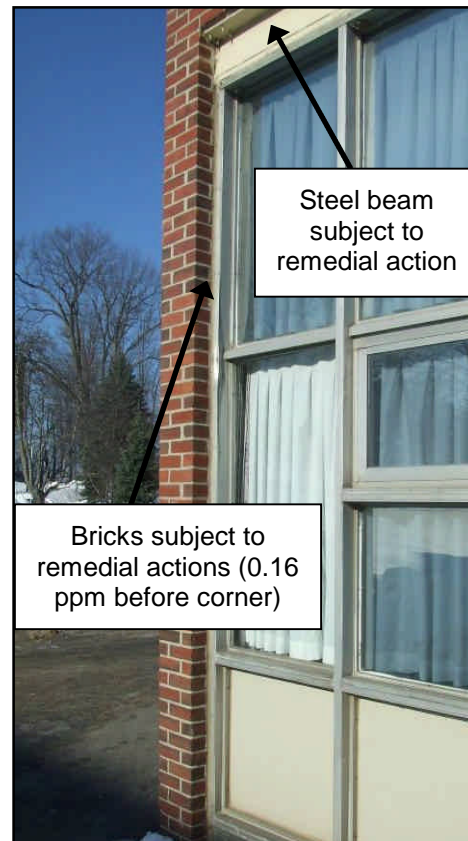
###### Steel Beam (Upper Horizontal Perimeter)

- The steel beam above the upper horizontal joint of the window bank, which measures approximately 78 feet long by 1 foot high, is scheduled to be scraped and repainted under the current scope of work. Given the potential for PCBs in areas in direct contact with the window joint caulking, the paint removal task will be completed under the same site controls that will be established for the removal of the PCB-containing caulking and window bank, and the paint will be disposed as  $\geq 50$  ppm PCB wastes.
- After the paint removal task is complete, verification wipe samples will be collected for comparison to the 10 ug/100cm<sup>2</sup> cleanup level for non-porous surfaces (e.g., metal) at a frequency of one sample per 25 linear feet for a total of 3 samples. If the cleanup level is met, the decontamination will be considered complete; if the cleanup level is not met, additional decontamination efforts may be performed until the cleanup level is

met. If the cleanup level is not met after thorough efforts at decontamination, a metal containment/encapsulation approach will be proposed at that time (i.e., liquid coating).

#### Brick Walls (Side Vertical Perimeter)

- The brick walls at both vertical ends of the window bank are assumed to be impacted by PCBs where the brick is in direct contact with the caulking. PCBs were reported in the brick at a distance of 2-3.5 inches from the caulked joint at a concentration of 0.16 ppm.
- After removing the window bank components and any residual caulking on the bricks, and before installing the new windows, one brick sample will be collected per side (2 samples total) from the surface formerly in direct contact with the caulked joint. If PCBs are  $\leq 1$  ppm, no further action will be taken with respect to the bricks. If PCBs are  $> 1$  ppm, a surficial brick removal approach (i.e., grinding) may be implemented at both vertical joints as the preferred remedial option in an attempt to reduce the concentration of PCBs  $\leq 1$  ppm. This approach will be determined by the contractor and project team based on the anticipated damage to the brick. If removal is infeasible or the 1 ppm level cannot be achieved through a removal approach, an encapsulation approach will be implemented as described below:
  - Bricks in former direct contact with the caulking and to a minimum distance of 2 inches beyond the caulked joint will be managed by encapsulating the PCBs in place with a liquid coating. For aesthetic purposes, the coating may also be covered by a physical barrier. An epoxy or acrylic coating such as Sikagard 62 or Sikagard 670W will be applied to the surface.
  - Verification surface wipe samples will be collected from representative locations to evaluate the effectiveness of the encapsulation and establish a baseline for future monitoring. This will include the collection of one sample from each vertical brick section for a total of two samples. Wipe samples will be collected using hexane-saturated gauze wipes in accordance with the standard wipe test method (40 CFR 761.123).
  - Analytical results from the wipe samples of the coated surface will be evaluated to determine whether or not this task is complete as follows: Results  $\leq 1 \mu\text{g}/100 \text{ cm}^2$  will indicate the task is complete. Results  $> 1 \mu\text{g}/100 \text{ cm}^2$  will indicate that additional application of the coating may be required, and additional verification wipe samples will be collected at an off-set location.



### **3.3.2 Upton Hall – North Elevation Full Length Windows**

The scope of work involves the complete removal of the windows, metal panels, and metal frames at this location. Based on the concentrations of PCBs detected in the caulking, a waste segregation and disposal approach is proposed as outlined below:

- PCB waste  $\geq 50$  ppm: includes the side vertical joint caulking and the associated direct contact metal frame components, as well as the metal panel caulking and associated metal panel and direct contact frame components;
- PCB waste  $> 1$  and  $< 50$  ppm: includes the glass panes, metal frames, and associated caulking not in direct contact with metal panels, metal panel frames, or side vertical frames.

At this time, it is anticipated that this waste segregation approach will be implemented. However, if the contractor determines that material segregation is infeasible or highly labor intensive, all components of this window bank will be managed for disposal as PCB waste  $\geq 50$  ppm without waste stream segregation.

It is assumed that approximately 9 cubic yards of material may be generated for disposal at this location (26-foot width x 45.5-foot height x 0.2-foot (estimated) average thickness = 240 cubic feet or approximately 9 cubic yards).

Verification of this task will consist of an inspection to confirm that all components of the window bank have been removed. No verification samples will be collected as no components of this window bank are scheduled to remain in place. However, the building materials in direct contact with PCB caulking  $\geq 50$  ppm are subject to remedial actions. These materials include interior and exterior adjacent brick and concrete walls as described below.

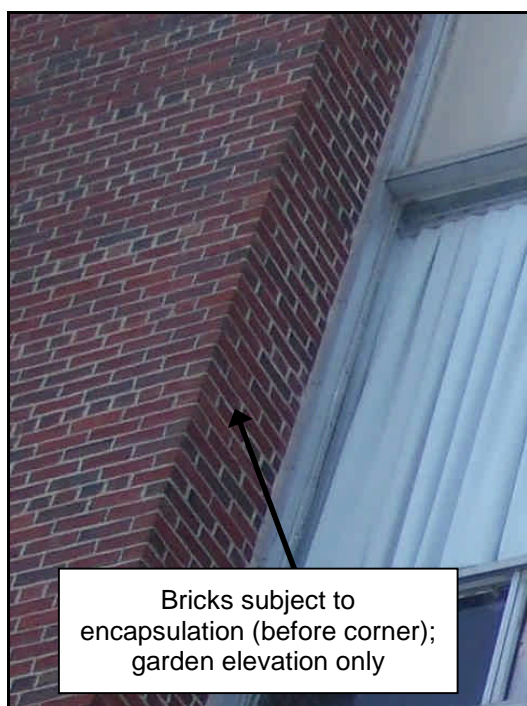
### 3.3.2.1 Exterior Adjacent Materials

Concentrations of PCBs reported in exterior masonry adjacent to the vertical metal frame joints at this location warrant remedial actions. PCBs were delineated to meet the 1 ppm high occupancy cleanup level within a distance of 16 inches beyond the vertical joints. At elevations above the garden level (elevations greater than 10 feet above grade), a low occupancy cleanup criterion of 25 ppm is being proposed given the limited to no access to these portions of the building.

After removing the window bank components and any residual caulking on the bricks, one brick sample will be collected from each vertical joint surface formerly in direct contact with the caulked joint for an approximate sample frequency of one sample per 50 linear feet. If PCBs are  $\leq 1$  ppm, no further action will be taken with respect to the bricks. If PCBs are  $> 1$  ppm, a surficial brick removal approach (i.e., grinding) may be implemented at both vertical joints as the preferred remedial option in an attempt to reduce the concentration of PCBs  $\leq 1$  ppm. The feasibility of this approach will be determined by the contractor and project team based on the anticipated damage to the brick. However, if the brick removal approach is infeasible or if PCBs  $\leq 1$  ppm cannot be achieved, an encapsulation approach will be implemented as follows:

- Impacted masonry will be managed in place by encapsulating the PCBs with a liquid coating before installing the new windows. An epoxy or acrylic coating such as Sikagard 62 or Sikagard 670W will be applied to the surface, and, may also include a physical barrier such as sheet metal flashing over the liquid coating. The following masonry surfaces are proposed to be encapsulated:
  - *East and West side vertical joints greater than 10 feet above ground surface:* bricks in former direct contact with the caulked joint (ultimately to be covered by new window installation).
  - *East side garden level, within 10 feet of ground surface:* bricks in former direct contact with the caulked joint and the accessible brick surface extending to a minimum lateral distance of 16 inches (to the first right angle from the joint);

- *West side garden level, within 10 feet of ground surface:* concrete in former direct contact with the caulked joint and the accessible concrete surface extending to a minimum lateral distance of 16 inches (to the first right angle from the joint). Note that the concrete section is approximately 10 feet high at this location.
- Verification surface wipe samples will be collected from representative locations to evaluate the effectiveness of the encapsulation and establish a baseline for future monitoring. This will include the collection of one sample from each encapsulated surface (the east side brick and the west side concrete) for a total of two samples (a frequency of one sample per 50 linear feet). Wipe samples will be collected using hexane-saturated gauze wipes in accordance with the standard wipe test method (40 CFR 761.123).
- Analytical results from the wipe samples of the coated surface will be evaluated to determine whether or not this task is complete as follows: Results  $\leq 1 \mu\text{g}/100 \text{ cm}^2$  will indicate the task is complete. Results  $> 1 \mu\text{g}/100 \text{ cm}^2$  will indicate that additional application of the coating may be required, and additional verification wipe samples will be collected at an off-set location.



An encapsulation barrier is not proposed for the accessible brick above the garden level on the east or west sides due to the low-occupancy setting of these elevations and the accessible brick PCB concentration below the 25 ppm cleanup level. However, the bricks in direct contact with the former caulked joint will be encapsulated with a liquid coating before the new window bank is installed at all elevations as described above.

### 3.3.2.2 Interior Adjacent Materials

Concentrations of PCBs reported in interior caulking and masonry adjacent to the east and west vertical metal frame joints on the second and third floors of the building warrant remedial actions. Given the occupied setting of these

areas, a high occupancy cleanup criterion of 1 ppm is being applied to these portions of the building. The remedial approach proposed for the east and west sides of the window bank on the second and third floors of this elevation is outlined below:

- The accessible brick surface from the former joint to a minimum distance of one full brick width beyond the joint will be managed by encapsulating the PCBs in place with a liquid coating before installing the new windows. For aesthetic purposes, the coating may also be covered by a physical barrier. An epoxy or acrylic coating such as Sikagard 62 or Sikagard 670W will be applied to the surface, or, could consist of a physical barrier such as sheet metal flashing. The total surface area of the bricks that would require encapsulation is approximately 70 ft<sup>2</sup>.
- Verification surface wipe samples will be collected from representative locations to evaluate the effectiveness of the encapsulation and establish a baseline for future monitoring. This will include the collection of one sample from a vertical joint on each of the second and third floors for a total of two samples (approximate sample frequency of one per 20 linear feet). Wipe samples will be collected using hexane-saturated gauze wipes in accordance with the standard wipe test method (40 CFR 761.123).
- Analytical results from the wipe samples of the coated surface will be evaluated to determine whether or not this task is complete as follows: Results  $\leq 1 \mu\text{g}/100 \text{ cm}^2$  will indicate the task is complete. Results  $> 1 \mu\text{g}/100 \text{ cm}^2$  will indicate that additional application of the coating may be required, and additional verification wipe samples will be collected at an off-set location.

At the garden level elevation, PCB containing replacement caulking ( $< 50 \text{ ppm}$ ) at the interior window joint has been detected and as such the adjacent materials (i.e. the interior wall and window ledge) will be remediated during this work. If physical removal of the plaster walls and/or wooden window sill shelf is not a feasible option, an encapsulation coating (paint) will be applied to the surfaces after caulking and window removal. The options for encapsulation are the same as described for the brick wall encapsulation above. If a coating is applied to encapsulate the surfaces (a plaster wall and a wooden shelf), two verification surface wipe samples (one from the wall for a frequency of 1 sample per 16 linear feet, and one from the shelf for a frequency of 1 sample per 10 linear feet) will be collected for comparison to the criteria described above. Other physical barriers may also be applied given the specific area configurations.

### **3.3.3 Upton Hall – Southwest Stair Elevation and North Elevation First Floor**

The scope of work involves the complete removal of the windows, doors, metal panels, and metal frames at these two locations. Caulking containing PCBs  $> 1$  and  $< 50 \text{ ppm}$  is present at select joints within these two window banks. If material segregation is determined to be feasible by the selected contractor, the remedial action will include the removal and segregation of the window bank components for disposal at as-found PCB concentrations. At a minimum, components segregated for disposal as PCB waste  $> 1$  and  $< 50 \text{ ppm}$  will include:

- Window pane glazing sealant, glass panes, and metal frames in direct contact with window glazing sealant (Southwest Stair Elevation);
- Metal to masonry perimeter caulking and the metal frame components in direct contact with the perimeter caulking (Southwest Stair Elevation); and,
- Metal frame to metal panel joints (North Elevation First Floor).



Based on the characterization data, the metal doors, metal panels, and vertical frame pieces not adjacent to glass panes or brick walls do not require disposal as PCB waste at the Southwest Stair Elevation. At the North Elevation First Floor, the glass window panes and metal frame components not in direct contact with the metal panel caulking do not require disposal as PCB waste<sup>2</sup>. However, if the contractor determines that material segregation is infeasible or highly labor intensive, all components of these window banks will be managed for disposal as PCB waste > 1 and < 50 ppm without waste stream segregation.

It is assumed that approximately 3 cubic yards of material may be generated for disposal at the Southwest Stair Elevation (9-foot width x 39.5-foot height x 0.2-foot (estimated) average thickness = 75 cubic feet or approximately 3 cubic yards) and approximately 6.5 cubic yards of material may be generated for disposal at the North Elevation First Floor (78-foot width x 11-foot height x 0.2-foot (estimated) average thickness = 175 cubic feet or approximately 6.5 cubic yards).

Verification of this task will consist of an inspection to confirm that all components of the window banks have been removed. No verification samples will be collected as no components of these window banks are scheduled to remain in place. If the upper horizontal caulked joint in contact with the steel beam on the north elevation first floor window bank is found to contain PCBs  $\geq 50$  ppm, a paint removal and decontamination approach for the steel beam will be implemented similar to the approach described in Section 3.3.1.1 above.

### 3.4 STORAGE AND DISPOSAL

The following activities will be completed with regard to the proper storage and disposal of PCB wastes:

- Secure, lined, and covered waste containers (cubic yard boxes, roll-offs, 55-gallon DOT-approved steel containers, or equivalent) or will be staged for the collection of PCB wastes generated during the work activities in accordance with 40 CFR 761.65;
- PCB waste containers will be properly labeled and marked in accordance with 40 CFR 761.40;
- At the end of each work day, any generated PCB wastes will be removed from the work area and placed into the appropriate waste containers;
- Caulking and certain building materials coated or in direct contact with caulking (windows, metal panels, and metal frames) will be transported off-site for disposal as PCB bulk product waste  $\geq 50$  ppm in accordance with 40 CFR 761.62. The waste will be transported to a hazardous waste landfill permitted to accept this type of waste (e.g., Chemical Waste Management's hazardous waste landfill in Model City, NY, or equivalent facility).
- Caulking and certain building materials containing PCBs > 1 and < 50 ppm, as well as any disposable PPE or poly sheeting generated during the remediation work, will be transported off-site for disposal as PCB waste in accordance with 40 CFR 761.61(a). The waste will be transported to a non-hazardous waste

---

<sup>2</sup> Due to access limitations, no characterization sample has been collected from the caulked joint present at the upper horizontal joint between the metal frame and the steel beam of the north elevation first floor window bank. A sample will be collected prior to window bank removal and disposal. If the caulking is found to contain PCBs  $\geq 50$  ppm, the caulking and the portion of the metal frame in direct contact with this caulking will be segregated for disposal as PCB waste  $\geq 50$  ppm and the steel beam will be decontaminated as described in Section 3.3.1.1. If the caulking is found to contain PCBs > 1 and < 50 ppm, the caulking and the portion of the metal frame in direct contact with this caulking will be segregated for disposal as PCB waste > 1 and < 50 ppm.



landfill permitted to accept such materials (e.g., Waste Management's Crossroads Landfill in Norridgewock, Maine, or equivalent facility).

- Any decontamination fluids generated will be managed in accordance with 40 CFR 761.79.
- Copies of waste manifests, waste shipment records, and certificates of disposal will be collected and provided as part of the final report to EPA and the Maine Department of Environmental Protection (MEDEP).

### **3.5 RECORDKEEPING AND DOCUMENTATION**

Following completion of the work activities, records and documents per 40 CFR Part 761 will be generated and maintained at one location. These documents will be made available to EPA and MEDEP upon request. A final report documenting the completion of the work activities and including but not limited to a description of the work activities, verification analytical results, volumes of disposed materials, and waste disposal documentation will be prepared and submitted to EPA and MEDEP.

### **3.6 ADJACENT GROUND SURFACES**

Given the project timing, work associated with the windows and building is proposed to be performed before any PCB remediation work that may be needed for adjacent soils. Additional soil characterization samples were not collected during follow-up characterization activities in February 2011 due to weather limitations. It is planned that an addendum to this Plan for subsequent EPA Approval will be completed for site soils adjacent to Anderson and Upton Halls.

### **3.7 SCHEDULE**

Remediation activities will be conducted following approval of this plan and in accordance with the overall project schedule. Because the buildings are currently occupied, the remediation and renovation schedule will depend on the time of year and the University's academic calendar. At this time, it is anticipated that the work will begin in mid-May 2011 (after the spring semester ends) with a targeted completion date of mid-August 2011 (before the fall semester begins).

### **3.8 CONCEPTUAL MONITORING AND MAINTENANCE PLAN**

As described in this plan, some building materials will be managed in place in accordance with 40 CFR 761.61(c). This approach removes source materials and utilizes a physical barrier approach (i.e., a liquid coating) to eliminate the direct contact exposure potential and migration pathways of PCBs remaining on the building. Upon completion of the remedial actions, the impacted materials would not be accessible to direct exposure or migration to surrounding building materials.

Following the completion of the remediation activities described herein, a monitoring and maintenance plan (MMP) will be developed and implemented. The main components of the plan are as follows:

- Visual inspections – visual inspections of the encapsulated surfaces will be conducted. The inspections will be recorded and included in a report to the EPA. The inspections will consist of an assessment of the following:
  - Signs of the underlying coating, or excessive pitting, peeling, or breakages in the coating, if visible;

- 
- Signs of weathering or disturbance of the replacement caulking (where applied); and,
  - A general inspection of the encapsulated surfaces.
  - Monitoring – surface wipe samples will be collected from the encapsulated surfaces. Wipe samples will be collected at the same frequency as the baseline sampling of encapsulated surfaces as described in this plan, or at an approved reduced frequency. Wipe samples will be collected following the standard wipe test procedures described in 40 CFR 761.123 or by an alternate approved method.
  - Corrective Actions – if results of the inspections indicate that damage has occurred to a component of the barrier system, the needed repairs will be conducted;
  - Maintenance Guidelines and Procedures – to prevent potential exposure to maintenance and facility personnel that may perform activities in the encapsulated areas, guidelines and procedures will be developed and implemented for any work being conducted in the respective encapsulated areas. These guidelines and procedures will detail communication procedures, worker protection requirements, and worker training requirements to be conducted for maintenance or other activities in these areas;
  - Reporting – a report documenting the findings of the visual inspections will be prepared and submitted to EPA.

The details of the MMP will be developed following completion of the remedial activities described above. The results of the verification testing, baseline sampling, and inspections will be used to develop the details of the plan. The MMP will be provided to EPA under a separate submittal following the completion of the remedial activities.

## **APPENDIX A: LABORATORY ANALYTICAL DATA**

## USM GORHAM - PROJECT SUMMARY

**Analytics Environmental Laboratory Job Number: 68987**

**A modified Tier II validation was performed on the data. The criteria detailed below were used to qualify the data. Raw data were not used to verify the results reported by the laboratory.**

Samples were received at 4 degrees Celsius. No qualifications will be applied.

### PCBs:

All polychlorinated biphenyl compound (PCB) samples were extracted and analyzed within technical holding times. No qualifications will be applied. PCB aqueous field blank sample UH-CBKQ-033 (M68987-31) was not reported since the sample extract was lost during a laboratory accident.

All PCB surrogates met acceptance criteria (30-150%) or were diluted out with the following exceptions:

LAB ID	SAMPLE ID	TCX (%/%)	DCB (%/%)	QUALIFIER
68987-2	AH-CBK-002	OK/OK	470/OK	None, only 1 out
68987-18	UH-CBK-020	605/1177	OK/OK	None, sample ND
68987-21	UH-CBK-023	169/OK	OK/OK	None, only 1 out
68987-23	UH-CBK-025	OK/OK	2341/2726	None, sample ND

TCX = tetrachloro-m-xylene DCB = decachlorobiphenyl

The PCB method blanks were non-detect (ND) for all target analytes with one exception. PCB-1254 (0.2 µg/L) was detected in the aqueous method blank. The detected PCB-1254 result in aqueous field blank sample AH-CBCQ-011 (68987-9) was qualified as undetected (U) due to method blank action.

PCB field blank sample AH-CBCQ-011 (68987-9) was ND for all target analytes after method blank action was applied. No qualifications will be applied.

The PCB matrix spike/matrix spike duplicate (MS/MSD) performed on sample UH-CBKD-013 (68987-11) were not analyzed due to the high concentration of PCB-1254 present in the unspiked sample. No qualifications will be applied.

The PCB laboratory control sample (LCS)/laboratory control sample duplicate (LCSD) met acceptance criteria. No qualifications will be applied.

PCB field duplicate samples UH-CBK-012 (68987-10)/UH-CBKD-013 (68987-11) and UH-CBK-030 (68987-28)/UH-CBKD-031 (68987-29) met acceptance criteria with the following exception. PCB-1254 was not detected in sample UH-CBKD-031 (68987-29), but was detected at greater than two times the reporting limit in sample UH-CBK-030 (68987-28). The detected and non-detected PCB-1254 results were estimated (J, UJ) in samples UH-CBK-028 (68987-26), UH-CBK-029 (68987-27), UH-CBK-030 (68987-28), UH-CBKD-031 (68987-29), and UH-CBK-032 (68987-30) due to poor field duplicate precision.

The relative percent difference (RPD) between the column results for all detected PCBs met acceptance criteria ( $\leq 25\%$ ) with the following exceptions:

LAB ID	SAMPLE ID	PCB	RPD	QUALIFIER
68987-8	AH-CBK-010	1254	28.0	J
68987-14	UH-CBC-016	1254	25.7	J
68987-28	UH-CBK-030	1254	31.5	J
68987-30	UH-CBK-032	1254	30.6	J

Many samples were analyzed at dilutions due to the high concentration of PCBs present in the samples and/or due to sample matrix. Elevated quantitation limits are reported in these samples as a result of the dilutions performed.

## **USM GORHAM - PROJECT SUMMARY**

**Analytics Environmental Laboratory Job Number: 68987**

Data Check, Inc.  
P.O. Box 29  
81 Meaderboro Road  
New Durham, NH 03855

Gloria J. Switalski:  
President

Date:

February 14, 2011

Ms. Amy Wallace  
Woodard & Curran  
35 NE Business Center Suite 180  
Andover MA 01810

**RE: Analytical Results Case Narrative  
Analytics # 68987  
USM Gorham Project No: 224164**

Dear Ms. Wallace;

Enclosed please find the analytical results for samples submitted for the above-mentioned project. The attached Cover Page lists the sample IDs, Lab tracking numbers and collection dates for the samples included in this deliverable.

Samples were analyzed Polychlorinated Biphenyls (PCBs) by EPA Method 8082.

Unless otherwise noted in the Non-conformance Summary listed below, all of the quality control (QC) criteria including initial calibration, calibration verification, surrogate recovery, holding time and method accuracy/precision for these analyses were within acceptable limits.

This Level II data package has been assembled in the following order:

- Case Narrative/Non-Conformance Summary
- Sample Log Sheet - Cover Page
- PCB Form 1 Data Sheet for Samples and Blanks
- Chromatograms
- PCB Form 10 Confirmation Results
- PCB Form 3 MS/MSD (LCS) Recoveries
- Chain of Custody (COC) Forms

## QC NON-CONFORMANCE SUMMARY

**Sample Receipt:**

No exceptions.

**PCBs by EPA Method 8082:**

No results were reported below the quantitation limit.

Due to a laboratory accident during the extract concentration step the extract for sample 68987-31 was lost and could not be analyzed.

The aqueous laboratory blank (B020711PW) had PCB 1254 detected. The sample 68987-9 extracted with this blank had PCB 1254 detected at 0.3 ug/L. The sample could not be re-extracted as no extra volume was provided. The result was qualified with a "B" flag and reported.

Samples 68987-1 thru 68987-5, 68987-8, 68987-10 thru 68987-12, 68987-14, 68987-15, 68987-17 thru 68987-19 and 68987-24 required dilution due to the concentrations of PCBs detected in the samples or matrix interferences.

Several samples had one of the two surrogates outside the laboratory acceptance criteria due to matrix effect or interferences. The secondary surrogates were in control. Samples results were reported with a comment to this affect.

The continuing calibration standard (file#M35726SC) had low Decachlorobiphenyl surrogate recovery. The standard was reanalyzed (file#M35728SC) with all analytes in control.

The MS/MSD extracted on sample 68987-11 was not analyzed as the parent sample required a 1:10000 dilution. The laboratory control samples (L020411PSOX2/LD020411PSOX2) were in control. Results were reported without qualification.

If you have any questions on these results, please do not hesitate to contact me.

Sincerely,  
ANALYTICS Environmental Laboratory, LLC



Stephen L. Knollmeyer  
Laboratory Director

Ms. Amy Wallace  
Woodard & Curran  
41 Hutchins Drive  
Portland ME 04102

**Report Number: 68987**

**Revision: Rev. 0**

**Re: USM Gorham (Project No: 224164)**

Enclosed are the results of the analyses on your sample(s). Samples were received on 04 February 2011 and analyzed for the tests listed. Samples were received in acceptable condition, with the exceptions noted below or on the chain of custody. These results pertain to samples as received by the laboratory and for the analytical tests requested on the chain of custody. The results reported herein conform to the most current NELAC standards, where applicable, unless otherwise narrated in the body of the report. Please see individual reports for specific methodologies and references.

**Sample Analysis:** The attached pages detail the Client Sample IDs, Lab Sample IDs, and Analyses requested

**Sample Receipt Exceptions:** None

Analytics Environmental Laboratory is certified by the states of New Hampshire, Maine, Massachusetts, Connecticut, Rhode Island, Virginia, Maryland, and is accredited by the Department of Defense (DOD) ELAP program. A list of actual certified parameters is available upon request.

If you have any questions on these results, please do not hesitate to contact us.

Authorized signature

  
Stephen L. Knollmeyer Lab. Director

Date

02/11/11

This report shall not be reproduced, except in full, without the written consent of Analytics Environmental Laboratory, LLC.



CLIENT: Woodard & Curran

REPORT NUMBER: 68987

REV: Rev. 0

PROJECT: USM Gorham (Project No: 224164)

<u>Lab Number</u>	<u>Sample Date</u>	<u>Station Location</u>	<u>Analysis</u>	<u>Comments</u>
68987-1	02/03/11	AH-CBK-001	EPA 8082 (PCBs only)	
68987-2	02/03/11	AH-CBK-002	EPA 8082 (PCBs only)	
68987-3	02/03/11	AH-CBK-003	EPA 8082 (PCBs only)	
68987-4	02/03/11	AH-CBC-004	EPA 8082 (PCBs only)	
68987-5	02/03/11	AH-CBC-006	EPA 8082 (PCBs only)	
68987-6	02/03/11	AH-CWM-008	EPA 8082 (PCBs only)	
68987-7	02/03/11	AH-CWM-009	EPA 8082 (PCBs only)	
68987-8	02/03/11	AH-CBK-010	EPA 8082 (PCBs only)	
68987-9	02/03/11	AH-CBCQ-011	EPA 8082 (PCBs only)	
68987-10	02/03/11	UH-CBK-012	EPA 8082 (PCBs only)	
68987-11	02/03/11	UH-CBKD-013	EPA 8082 (PCBs only)	
68987-12	02/03/11	UH-CBB-014	EPA 8082 (PCBs only)	
68987-13	02/03/11	UH-CBB-015	EPA 8082 (PCBs only)	
68987-14	02/03/11	UH-CBC-016	EPA 8082 (PCBs only)	
68987-15	02/03/11	UH-CBK-017	EPA 8082 (PCBs only)	
68987-16	02/03/11	UH-CBB-018	EPA 8082 (PCBs only)	
68987-17	02/03/11	UH-CBK-019	EPA 8082 (PCBs only)	
68987-18	02/03/11	UH-CBK-020	EPA 8082 (PCBs only)	
68987-19	02/03/11	UH-CBK-021	EPA 8082 (PCBs only)	
68987-20	02/03/11	UH-CBK-022	EPA 8082 (PCBs only)	
68987-21	02/03/11	UH-CBK-023	EPA 8082 (PCBs only)	
68987-22	02/03/11	UH-CBK-024	EPA 8082 (PCBs only)	
68987-23	02/03/11	UH-CBK-025	EPA 8082 (PCBs only)	
68987-24	02/03/11	UH-CBK-026	EPA 8082 (PCBs only)	
68987-25	02/03/11	UH-CBB-027	EPA 8082 (PCBs only)	
68987-26	02/04/11	UH-CBK-028	EPA 8082 (PCBs only)	
68987-27	02/04/11	UH-CBK-029	EPA 8082 (PCBs only)	
68987-28	02/04/11	UH-CBK-030	EPA 8082 (PCBs only)	
68987-29	02/04/11	UH-CBKD-031	EPA 8082 (PCBs only)	
68987-30	02/04/11	UH-CBK-032	EPA 8082 (PCBs only)	
68987-31	02/04/11	UH-CBKQ-033	EPA 8082 (PCBs only)	

### Surrogate Compound Limits

Matrix:	Aqueous	Solid	
Units:	% Recovery	% Recovery	Method
Volatile Organic Compounds - Drinking Water			
1,4-Difluorobenzene	70-130		EPA 524.2
Bromofluorobenzene	70-130		
1,2-Dichlorobenzene-d4	70-130		
Volatile Organic Compounds			
1,2-Dichloroethane-d4	70-120	70-120	EPA 624/8260B
Toluene-d8	85-120	85-120	
Bromofluorobenzene	75-120	75-120	
Semi-Volatile Organic Compounds			
2-Fluorophenol	20-110	35-105	EPA 625/8270C
d5-Phenol	15-110	40-100	
d5-nitrobenzene	40-110	35-100	
2-Fluorobiphenyl	50-110	45-105	
2,4,6-Tribromophenol	40-110	40-125	
d14-p-terphenyl	50-130	30-125	
PAH's by SIM			
d5-nitrobenzene	21-110	35-110	EPA 8270C
2-Fluorobiphenyl	36-121	45-105	
d14-p-terphenyl	33-141	30-125	
Pesticides and PCBs			
2,4,5,6-Tetrachloro-m-xylene (TCX)	46-122	40-130	EPA 608/8082
Decachlorobiphenyl (DCB)	40-135	40-130	
Herbicides			
Dichloroacetic acid (DCAA)	30-150	30-150	
Gasoline Range Organics/TPH Gasoline			
Trifluorotoluene TFT (FID)	60-140	60-140	MEDEP 4217/EPA 8015
Bromofluorobenzene (BFB) (FID)	60-140	60-140	
Trifluorotoluene TFT (PID)	60-140	60-140	
Bromofluorobenzene (BFB) (PID)	60-140	60-140	
Diesel Range Organics/TPH Diesel			
m-terphenyl	60-140	60-140	MEDEP 4125/EPA 8015/CT ETPH
Volatile Petroleum Hydrocarbons			
2,5-Dibromotoluene (PID)	70-130	70-130	MADEP VPH May 2004 Rev1.1
2,5-Dibromotoluene (FID)	70-130	70-130	
Extracatable Petroleum Hydrocarbons			
1-chloro-octadecane (aliphatic)	40-140	40-140	MADEP EPH May 2004 Rev1.1
o-Terphenyl (aromatic)	40-140	40-140	
2-Fluorobiphenyl (Fractionation)	40-140	40-140	
2-Bromonaphthalene (fractionation)	40-140	40-140	

## PCB DATA SUMMARIES

Ms. Amy Wallace  
Woodard & Curran  
41 Hutchins Drive  
Portland ME 04102

February 11, 2011

**SAMPLE DATA**

**CLIENT SAMPLE ID**

---

**Project Name:** USM Gorham  
**Project Number:** 224164  
**Field Sample ID:** Lab QC

**Lab Sample ID:** B020411PSOX2  
**Matrix:** Wipe  
**Percent Solid:** N/A  
**Dilution Factor:** 1.0  
**Collection Date:**  
**Lab Receipt Date:**  
**Extraction Date:** 02/04/11  
**Analysis Date:** 02/08/11

PCB ANALYTICAL RESULTS		
COMPOUND	Quantitation Limit µg/wipe	Results µg/wipe
PCB-1016	0.5	U
PCB-1221	0.5	U
PCB-1232	0.5	U
PCB-1242	0.5	U
PCB-1248	0.5	U
PCB-1254	0.5	U
PCB-1260	0.5	U
<b><u>Surrogate Standard Recovery</u></b>		
2,4,5,6-Tetrachloro-m-xylene	94	%
Decachlorobiphenyl	53	%
U=Undetected J=Estimated E=Exceeds Calibration Range B=Detected in		

METHODOLOGY: Sample analysis conducted according to Test Methods for Evaluating Solid Waste, SW-846 Method 8082.

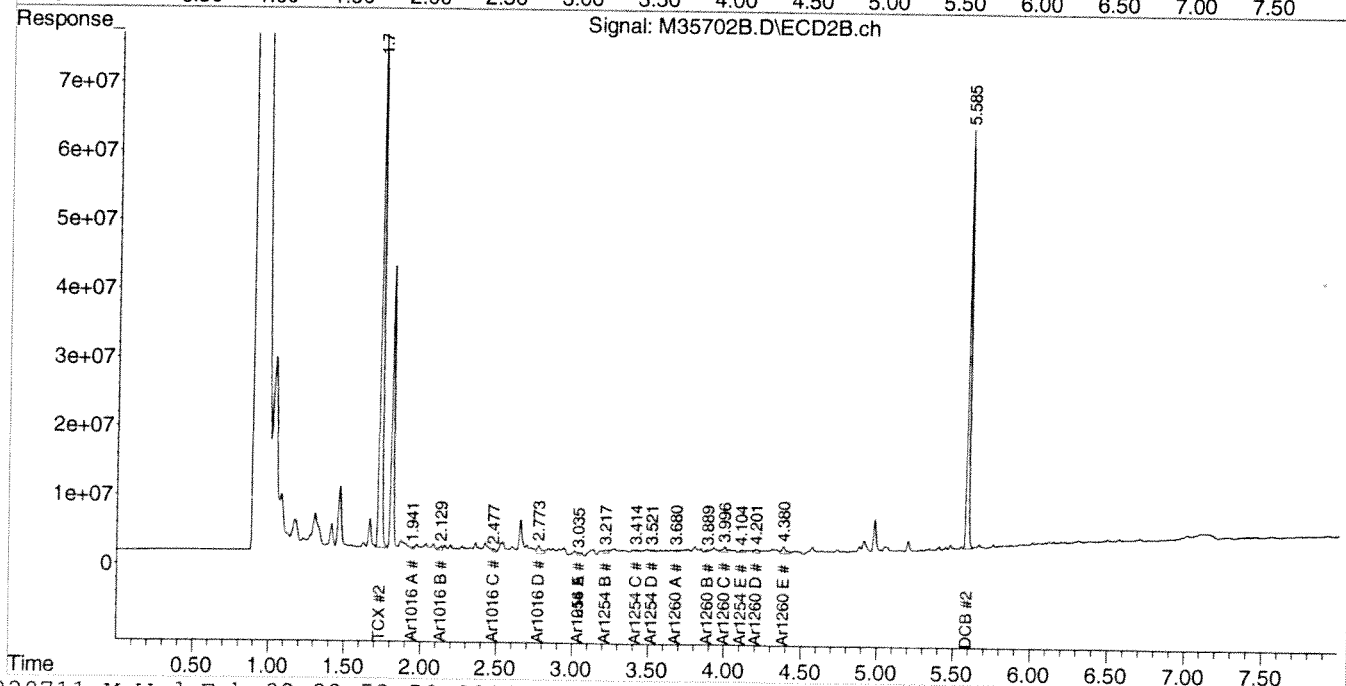
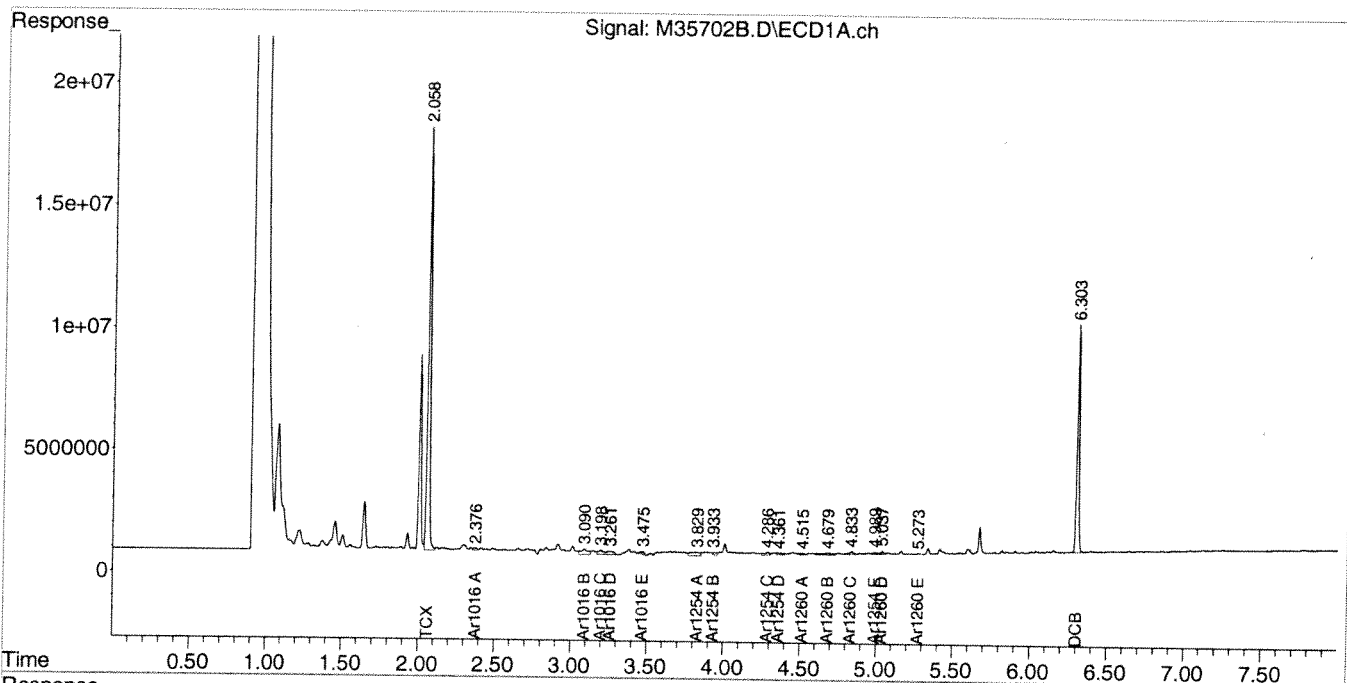
Sample preparation conducted according to Test Methods for Evaluating Solid Waste, SW-846 Method 3540C.

COMMENTS:

Data Path : C:\msdchem\1\DATA\020811-M\  
Data File : M35702B.D  
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch  
Acq On : 8 Feb 2011 10:25 am  
Operator : JK  
Sample : B020411PSOX2,,A/C  
Misc : SOIL  
ALS Vial : 6 Sample Multiplier: 1

Integration File signal 1: events.e  
Integration File signal 2: events2.e  
Quant Time: Feb 09 09:53:42 2011  
Quant Method : C:\msdchem\1\METHODS\PCB020711.M  
Quant Title : SW-846 METHOD 8082 Aroclor 1016/1260/1254  
QLast Update : Mon Feb 07 15:22:15 2011  
Response via : Initial Calibration  
Integrator: ChemStation

Volume Inj. : 2 uL  
Signal #1 Phase : STX-CLPPesticides Signal #2 Phase: STX-CLPPesticides  
Signal #1 Info : 30 m x 0.25mm x 0 Signal #2 Info : 30 m x 0.25mm x 0.25 um





Ms. Amy Wallace  
Woodard & Curran  
41 Hutchins Drive  
Portland ME 04102

February 11, 2011

**SAMPLE DATA**

**CLIENT SAMPLE ID**  
**Project Name:** USM Gorham  
**Project Number:** 224164  
**Field Sample ID:** Lab QC

**Lab Sample ID:** B020711PSOX  
**Matrix:** Soil  
**Percent Solid:** N/A  
**Dilution Factor:** 1.0  
**Collection Date:**  
**Lab Receipt Date:**  
**Extraction Date:** 02/07/11  
**Analysis Date:** 02/08/11

**PCB ANALYTICAL RESULTS**

COMPOUND	Quantitation Limit $\mu\text{g/kg}$	Results $\mu\text{g/kg}$
PCB-1016	33	U
PCB-1221	33	U
PCB-1232	33	U
PCB-1242	33	U
PCB-1248	33	U
PCB-1254	33	U
PCB-1260	33	U
<b><u>Surrogate Standard Recovery</u></b>		
2,4,5,6-Tetrachloro-m-xylene	92	%
Decachlorobiphenyl	54	%
U=Undetected J=Estimated E=Exceeds Calibration Range B=Detected in		

METHODOLOGY: Sample analysis conducted according to Test Methods for Evaluating Solid Waste, SW-846 Method 8082.

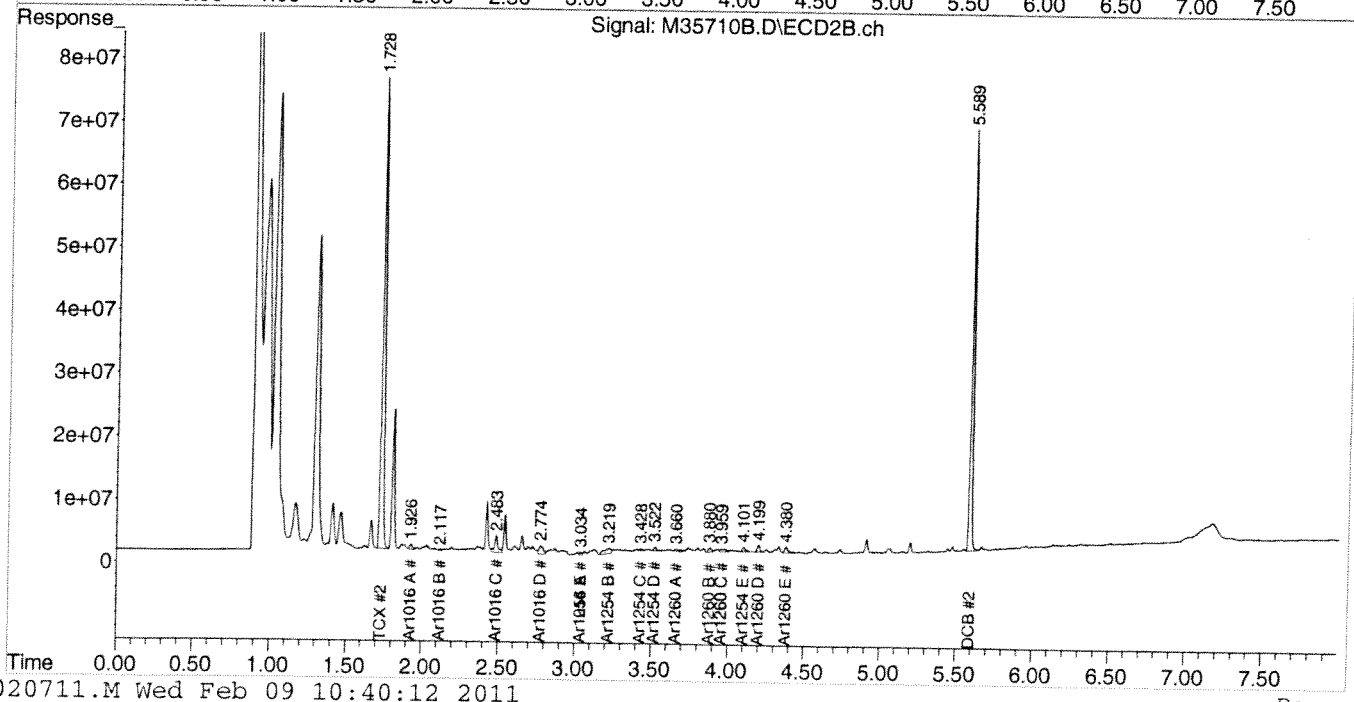
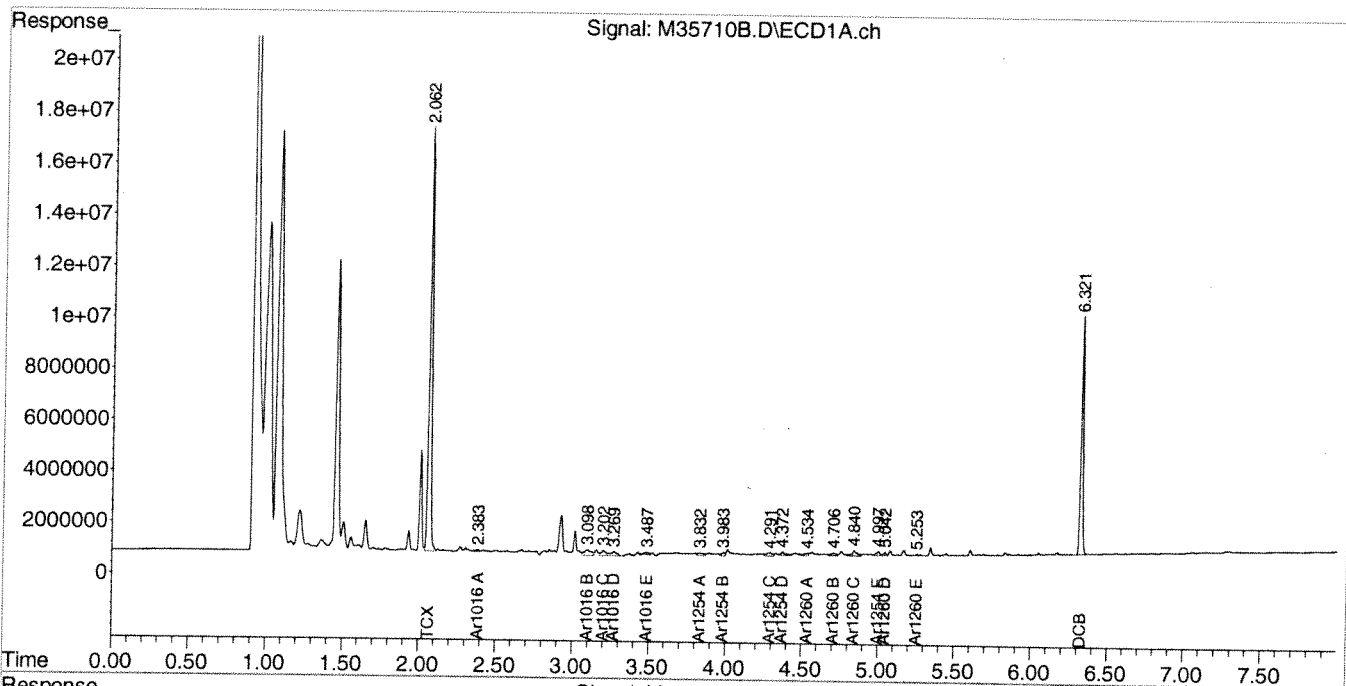
Sample preparation conducted according to Test Methods for Evaluating Solid Waste, SW-846 Method 3540C.

COMMENTS: Results are expressed on a dry weight basis.

Data Path : C:\msdchem\1\DATA\020811-M\  
Data File : M35710B.D  
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch  
Acq On : 8 Feb 2011 12:43 pm  
Operator : JK  
Sample : B020711PSOX,,A/C  
Misc : SOIL  
ALS Vial : 6 Sample Multiplier: 1

Integration File signal 1: events.e  
Integration File signal 2: events2.e  
Quant Time: Feb 09 10:39:11 2011  
Quant Method : C:\msdchem\1\METHODS\PCB020711.M  
Quant Title : SW-846 METHOD 8082 Aroclor 1016/1260/1254  
QLast Update : Mon Feb 07 15:27:39 2011  
Response via : Initial Calibration  
Integrator: ChemStation

Volume Inj. : 2 uL  
Signal #1 Phase : STX-CLPPesticides Signal #2 Phase: STX-CLPPesticides  
Signal #1 Info : 30 m x 0.25mm x 0 Signal #2 Info : 30 m x 0.25mm x 0.25 um



Ms. Amy Wallace  
Woodard & Curran  
41 Hutchins Drive  
Portland ME 04102

February 11, 2011

**SAMPLE DATA**

**CLIENT SAMPLE ID**

**Project Name:** USM Gorham  
**Project Number:** 224164  
**Field Sample ID:** Lab QC

**Lab Sample ID:** B020711PW  
**Matrix:** Aqueous  
**Percent Solid:** N/A  
**Dilution Factor:** 1.0  
**Collection Date:**  
**Lab Receipt Date:**  
**Extraction Date:** 02/07/11  
**Analysis Date:** 02/10/11

**PCB ANALYTICAL RESULTS**

COMPOUND	Quantitation Limit $\mu\text{g/L}$	Results $\mu\text{g/L}$
PCB-1016	0.2	U
PCB-1221	0.2	U
PCB-1232	0.2	U
PCB-1242	0.2	U
PCB-1248	0.2	U
PCB-1254	0.2	<b>0.2</b>
PCB-1260	0.2	U
<b><u>Surrogate Standard Recovery</u></b>		
2,4,5,6-Tetrachloro-m-xylene	69	%
Decachlorobiphenyl	45	%
U=Undetected J=Estimated E=Exceeds Calibration Range B=Detected in		

METHODOLOGY: Sample analysis conducted according to Test Methods for Evaluating Solid Waste, SW-846 Method 8082.

COMMENTS:

PCB Report

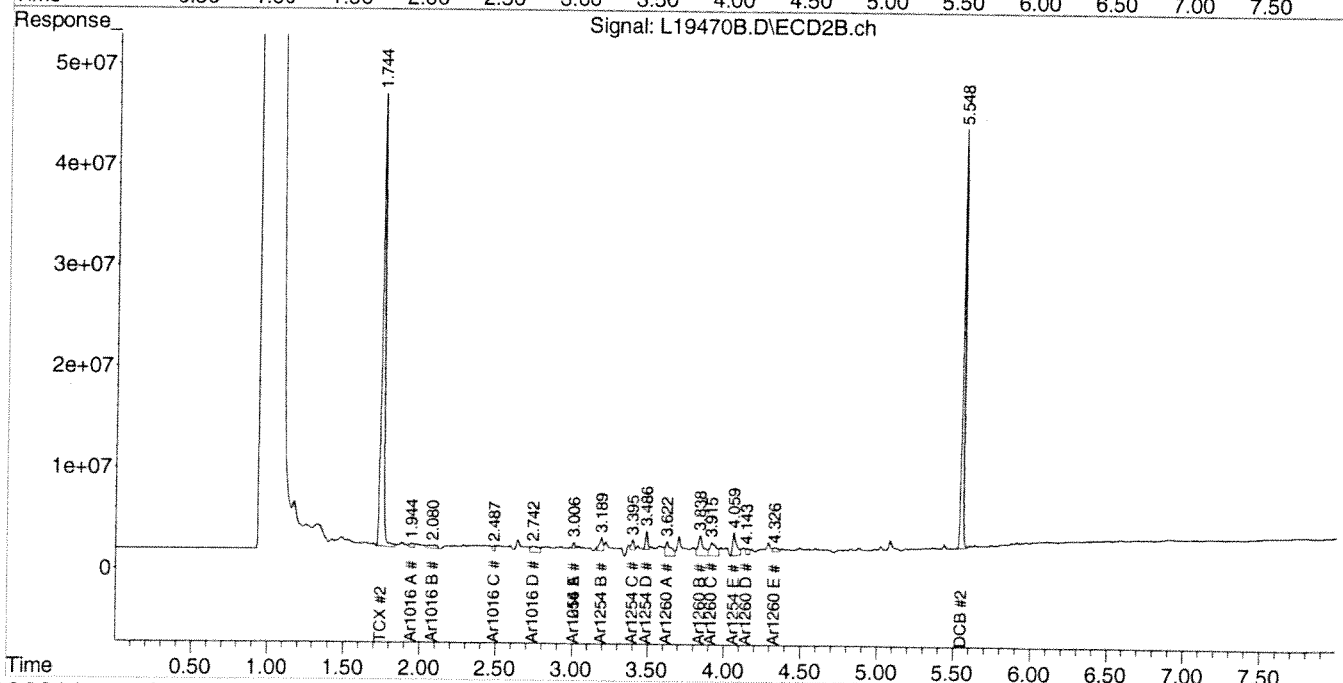
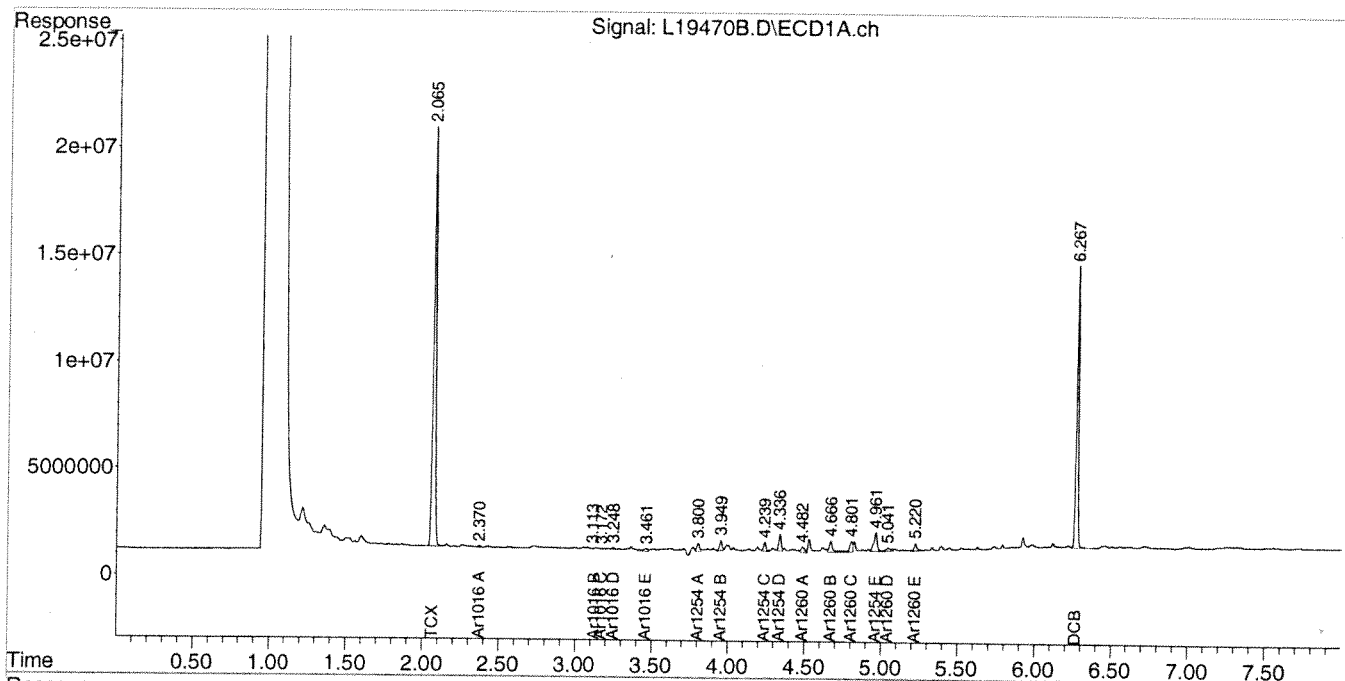
Authorized signature



Data Path : C:\msdchem\1\DATA\020911-L\  
 Data File : L19470B.D  
 Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch  
 Acq On : 10 Feb 2011 12:47 am  
 Operator : JK  
 Sample : B020711PW  
 Misc :  
 ALS Vial : 42 Sample Multiplier: 1

Integration File signal 1: autoint1.e  
 Integration File signal 2: autoint2.e  
 Quant Time: Feb 10 12:25:14 2011  
 Quant Method : C:\msdchem\1\METHODS\PCB020911.M  
 Quant Title : SW-846 METHOD 8082 Aroclor 1016/1260/1254  
 QLast Update : Thu Feb 10 10:23:36 2011  
 Response via : Initial Calibration  
 Integrator: ChemStation

Volume Inj. : 2 uL  
 Signal #1 Phase : STX-CLPPesticides Signal #2 Phase: STX-CLPPesticides  
 Signal #1 Info : 30 m x 0.25mm x 0 Signal #2 Info : 30 m x 0.25mm x 0.25 um



Ms. Amy Wallace  
Woodard & Curran  
41 Hutchins Drive  
Portland ME 04102

February 11, 2011

**SAMPLE DATA**

**CLIENT SAMPLE ID**

**Project Name:** USM Gorham  
**Project Number:** 224164  
**Field Sample ID:** Lab QC

**Lab Sample ID:** B020411PSOX2  
**Matrix:** Soil  
**Percent Solid:** N/A  
**Dilution Factor:** 1.0  
**Collection Date:**  
**Lab Receipt Date:**  
**Extraction Date:** 02/04/11  
**Analysis Date:** 02/10/11

**PCB ANALYTICAL RESULTS**

COMPOUND	Quantitation Limit µg/kg	Results µg/kg
PCB-1016	33	U
PCB-1221	33	U
PCB-1232	33	U
PCB-1242	33	U
PCB-1248	33	U
PCB-1254	33	U
PCB-1260	33	U
<b><u>Surrogate Standard Recovery</u></b>		
2,4,5,6-Tetrachloro-m-xylene	94	%
Decachlorobiphenyl	56	%
U=Undetected J=Estimated E=Exceeds Calibration Range B=Detected in		

METHODOLOGY: Sample analysis conducted according to Test Methods for Evaluating Solid Waste, SW-846 Method 8082.

Sample preparation conducted according to Test Methods for Evaluating Solid Waste, SW-846 Method 3540C.

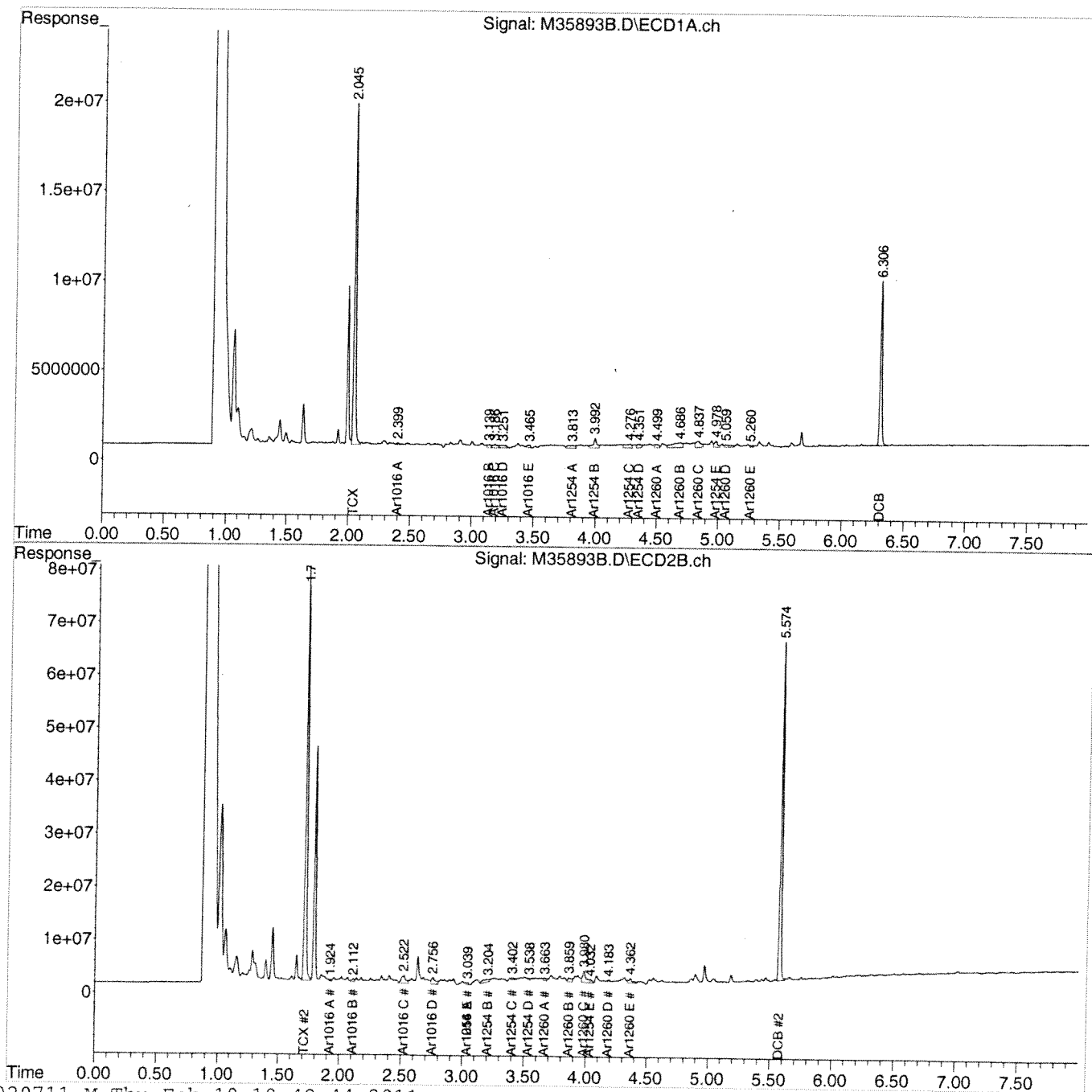
COMMENTS: Results are expressed on a dry weight basis.



Data Path : C:\msdchem\1\DATA\021011-M\  
Data File : M35893B.D  
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch  
Acq On : 10 Feb 2011 10:39 am  
Operator : JK  
Sample : B020411PSOX2,,A/C  
Misc : SOIL  
ALS Vial : 6 Sample Multiplier: 1

Integration File signal 1: events.e  
Integration File signal 2: events2.e  
Quant Time: Feb 10 10:48:43 2011  
Quant Method : C:\msdchem\1\METHODS\PCB020711.M  
Quant Title : SW-846 METHOD 8082 Aroclor 1016/1260/1254  
QLast Update : Mon Feb 07 15:22:15 2011  
Response via : Initial Calibration  
Integrator: ChemStation

Volume Inj. : 2 uL  
Signal #1 Phase : STX-CLPPesticides Signal #2 Phase: STX-CLPPesticides  
Signal #1 Info : 30 m x 0.25mm x 0 Signal #2 Info : 30 m x 0.25mm x 0.25 um



Ms. Amy Wallace  
Woodard & Curran  
41 Hutchins Drive  
Portland ME 04102

February 11, 2011

**SAMPLE DATA**

**CLIENT SAMPLE ID**  
  
**Project Name:** USM Gorham  
**Project Number:** 224164  
**Field Sample ID:** Lab QC

**Lab Sample ID:** B02041 IPSOX2 RR  
**Matrix:** Soil  
**Percent Solid:** N/A  
**Dilution Factor:** 1.0  
**Collection Date:**  
**Lab Receipt Date:**  
**Extraction Date:** 02/04/11  
**Analysis Date:** 02/10/11

**PCB ANALYTICAL RESULTS**

COMPOUND	Quantitation Limit $\mu\text{g/kg}$	Results $\mu\text{g/kg}$
PCB-1016	33	U
PCB-1221	33	U
PCB-1232	33	U
PCB-1242	33	U
PCB-1248	33	U
PCB-1254	33	U
PCB-1260	33	U
<b><u>Surrogate Standard Recovery</u></b>		
2,4,5,6-Tetrachloro-m-xylene	93	%
Decachlorobiphenyl	57	%
U=Undetected J=Estimated E=Exceeds Calibration Range B=Detected in		

METHODOLOGY: Sample analysis conducted according to Test Methods for Evaluating Solid Waste, SW-846 Method 8082.

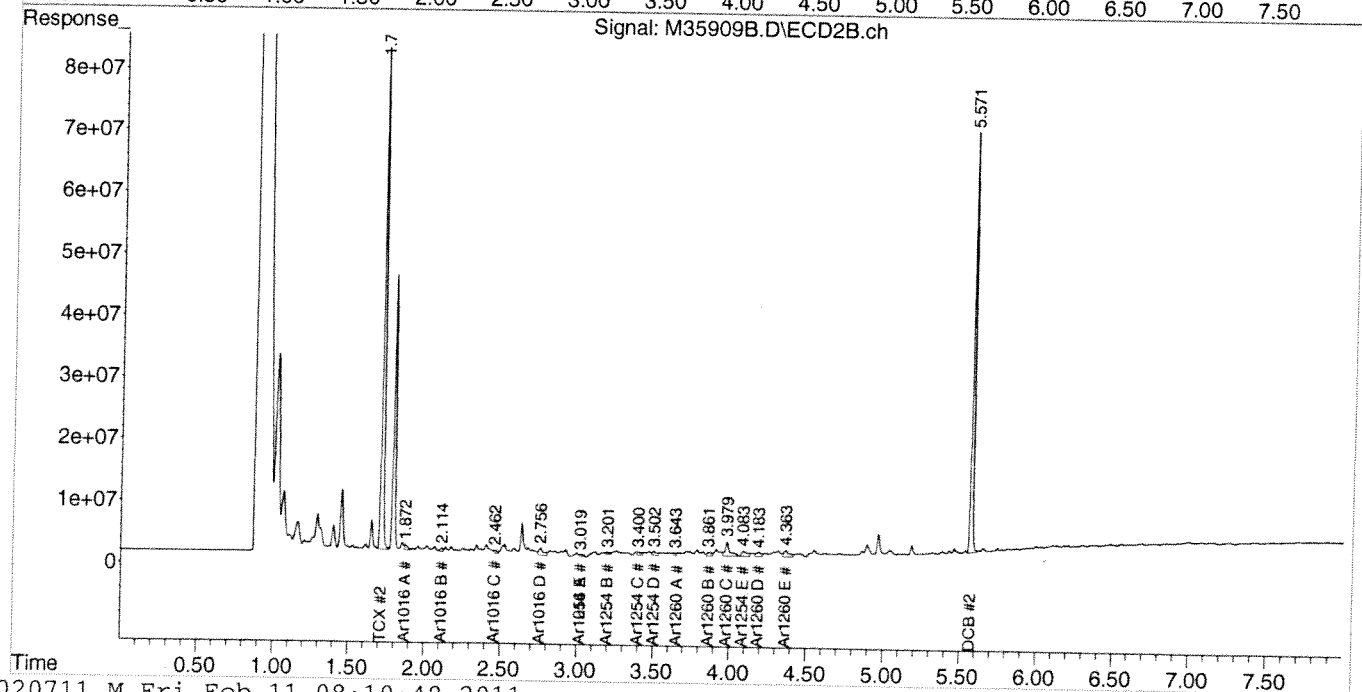
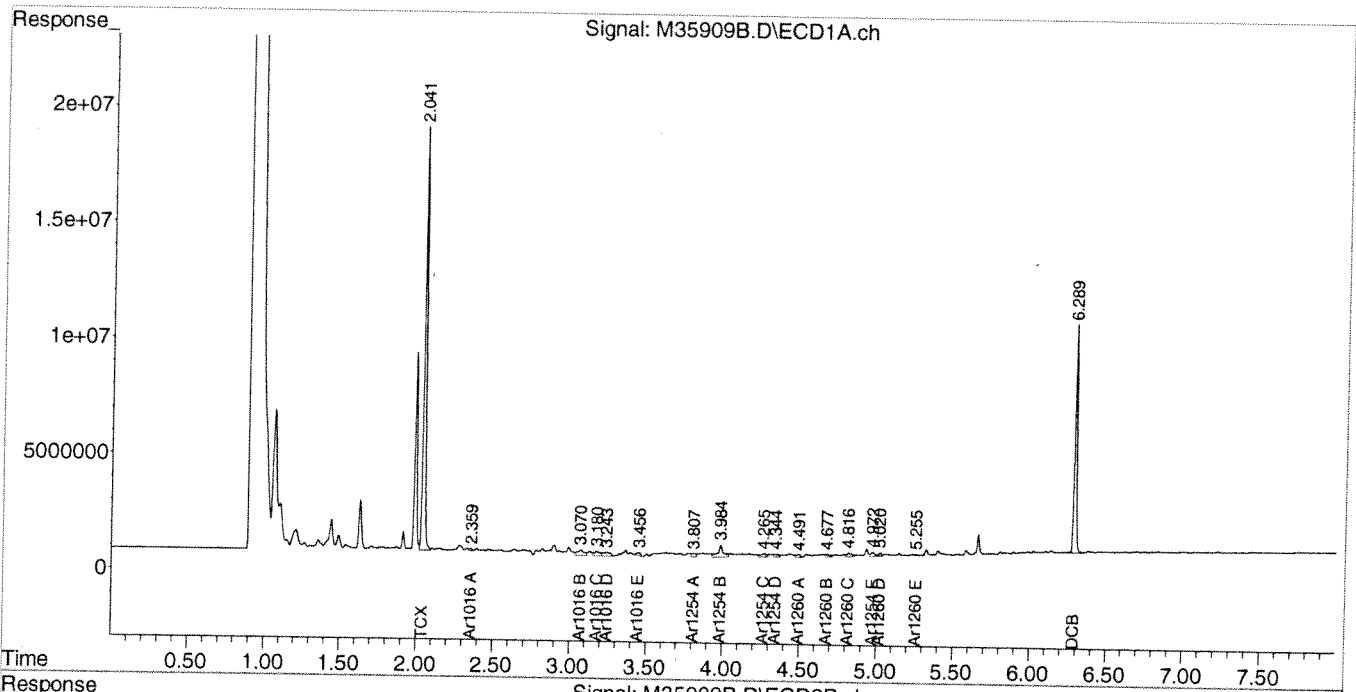
Sample preparation conducted according to Test Methods for Evaluating Solid Waste, SW-846 Method 3540C.

COMMENTS: Results are expressed on a dry weight basis.

Data Path : C:\msdchem\1\DATA\021011-M\  
Data File : M35909B.D  
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch  
Acq On : 10 Feb 2011 2:53 pm  
Operator : JK  
Sample : B020411PSOX2,RR,,A/C  
Misc : SOIL  
ALS Vial : 6 Sample Multiplier: 1

Integration File signal 1: events.e  
Integration File signal 2: events2.e  
Quant Time: Feb 11 08:10:38 2011  
Quant Method : C:\msdchem\1\METHODS\PCB020711.M  
Quant Title : SW-846 METHOD 8082 Aroclor 1016/1260/1254  
QLast Update : Mon Feb 07 15:22:15 2011  
Response via : Initial Calibration  
Integrator: ChemStation

Volume Inj. : 2 uL  
Signal #1 Phase : STX-CLPPesticides Signal #2 Phase: STX-CLPPesticides  
Signal #1 Info : 30 m x 0.25mm x 0 Signal #2 Info : 30 m x 0.25mm x 0.25 um



Ms. Amy Wallace  
Woodard & Curran  
41 Hutchins Drive  
Portland ME 04102

February 11, 2011

**SAMPLE DATA**

**CLIENT SAMPLE ID**  
**Project Name:** USM Gorham  
**Project Number:** 224164  
**Field Sample ID:** Lab QC

**Lab Sample ID:** B020711PSOX  
**Matrix:** Soil  
**Percent Solid:** N/A  
**Dilution Factor:** 1.0  
**Collection Date:**  
**Lab Receipt Date:**  
**Extraction Date:** 02/07/11  
**Analysis Date:** 02/10/11

**PCB ANALYTICAL RESULTS**

COMPOUND	Quantitation Limit $\mu\text{g/kg}$	Results $\mu\text{g/kg}$
PCB-1016	33	U
PCB-1221	33	U
PCB-1232	33	U
PCB-1242	33	U
PCB-1248	33	U
PCB-1254	33	U
PCB-1260	33	U
<b>Surrogate Standard Recovery</b>		
2,4,5,6-Tetrachloro-m-xylene	84	%
Decachlorobiphenyl	50	%
U=Undetected J=Estimated E=Exceeds Calibration Range B=Detected in		

METHODOLOGY: Sample analysis conducted according to Test Methods for Evaluating Solid Waste, SW-846 Method 8082.

Sample preparation conducted according to Test Methods for Evaluating Solid Waste, SW-846 Method 3540C.

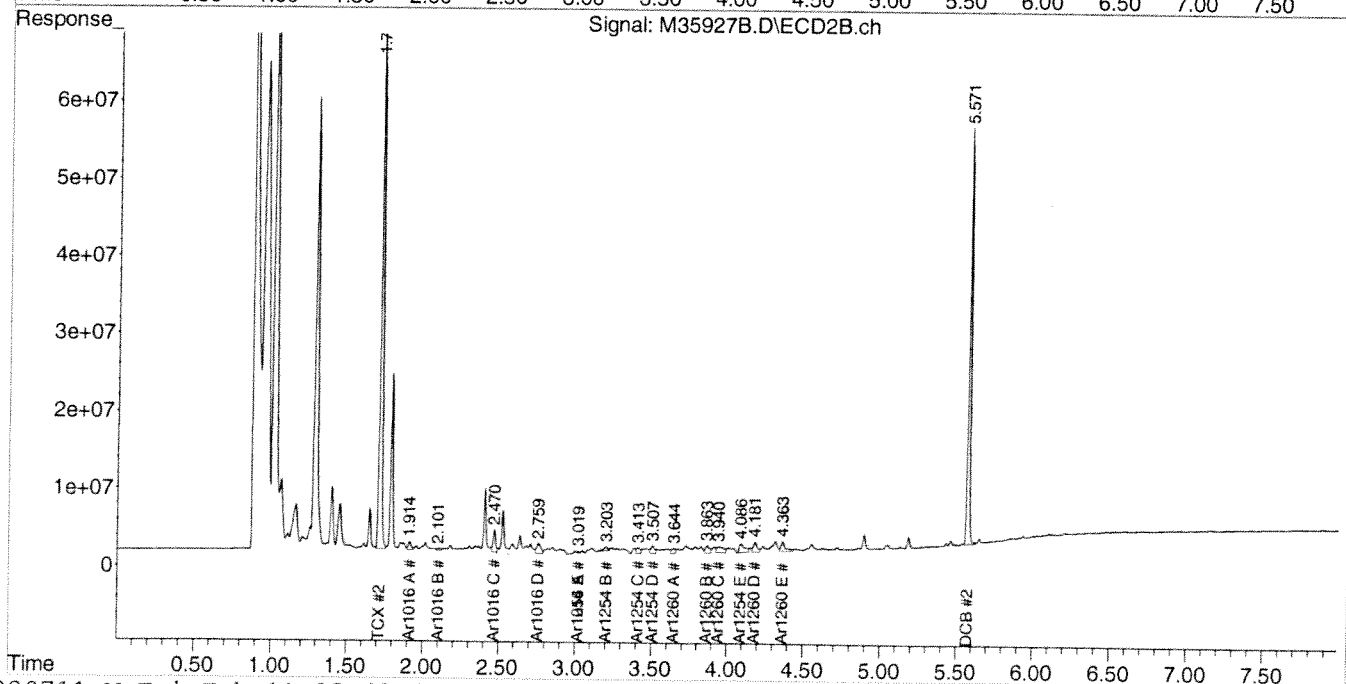
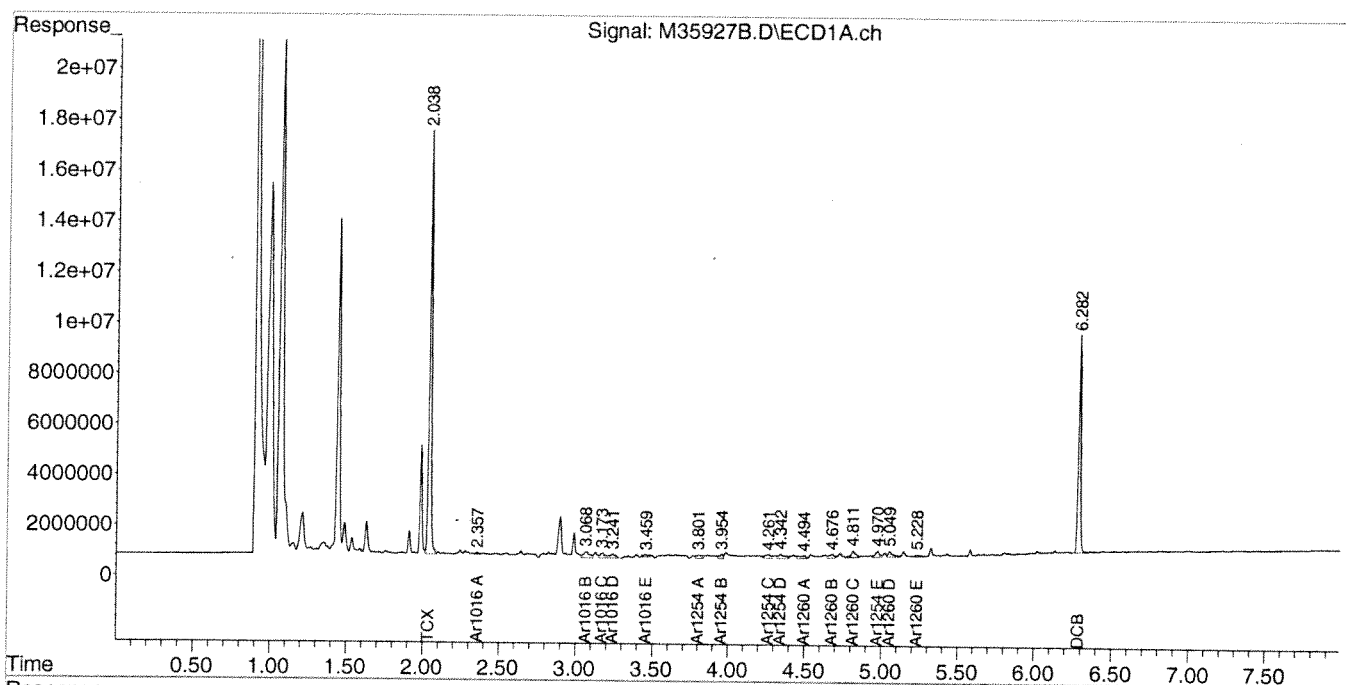
COMMENTS: Results are expressed on a dry weight basis.



Data Path : C:\msdchem\1\DATA\021011-M\  
Data File : M35927B.D  
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch  
Acq On : 10 Feb 2011 5:58 pm  
Operator : JK  
Sample : B020711PSOX,,A/C  
Misc : SOIL  
ALS Vial : 17 Sample Multiplier: 1

Integration File signal 1: events.e  
Integration File signal 2: events2.e  
Quant Time: Feb 11 08:48:50 2011  
Quant Method : C:\msdchem\1\METHODS\PCB020711.M  
Quant Title : SW-846 METHOD 8082 Aroclor 1016/1260/1254  
QLast Update : Mon Feb 07 15:22:15 2011  
Response via : Initial Calibration  
Integrator: ChemStation

Volume Inj. : 2 uL  
Signal #1 Phase : STX-CLPPesticides Signal #2 Phase: STX-CLPPesticides  
Signal #1 Info : 30 m x 0.25mm x 0 Signal #2 Info : 30 m x 0.25mm x 0.25 um



Ms. Amy Wallace  
Woodard & Curran  
41 Hutchins Drive  
Portland ME 04102

February 11, 2011

**SAMPLE DATA**

**CLIENT SAMPLE ID**

---

**Project Name:** USM Gorham  
**Project Number:** 224164  
**Field Sample ID:** Lab QC

**Lab Sample ID:** B020711PSOX RR  
**Matrix:** Soil  
**Percent Solid:** N/A  
**Dilution Factor:** 1.0  
**Collection Date:**  
**Lab Receipt Date:**  
**Extraction Date:** 02/07/11  
**Analysis Date:** 02/10/11

**PCB ANALYTICAL RESULTS**

COMPOUND	Quantitation Limit $\mu\text{g/kg}$	Results $\mu\text{g/kg}$
PCB-1016	33	U
PCB-1221	33	U
PCB-1232	33	U
PCB-1242	33	U
PCB-1248	33	U
PCB-1254	33	U
PCB-1260	33	U
<b><u>Surrogate Standard Recovery</u></b>		
2,4,5,6-Tetrachloro-m-xylene	86	%
Decachlorobiphenyl	56	%
U=Undetected J=Estimated E=Exceeds Calibration Range B=Detected in		

METHODOLOGY: Sample analysis conducted according to Test Methods for Evaluating Solid Waste, SW-846 Method 8082.

Sample preparation conducted according to Test Methods for Evaluating Solid Waste, SW-846 Method 3540C.

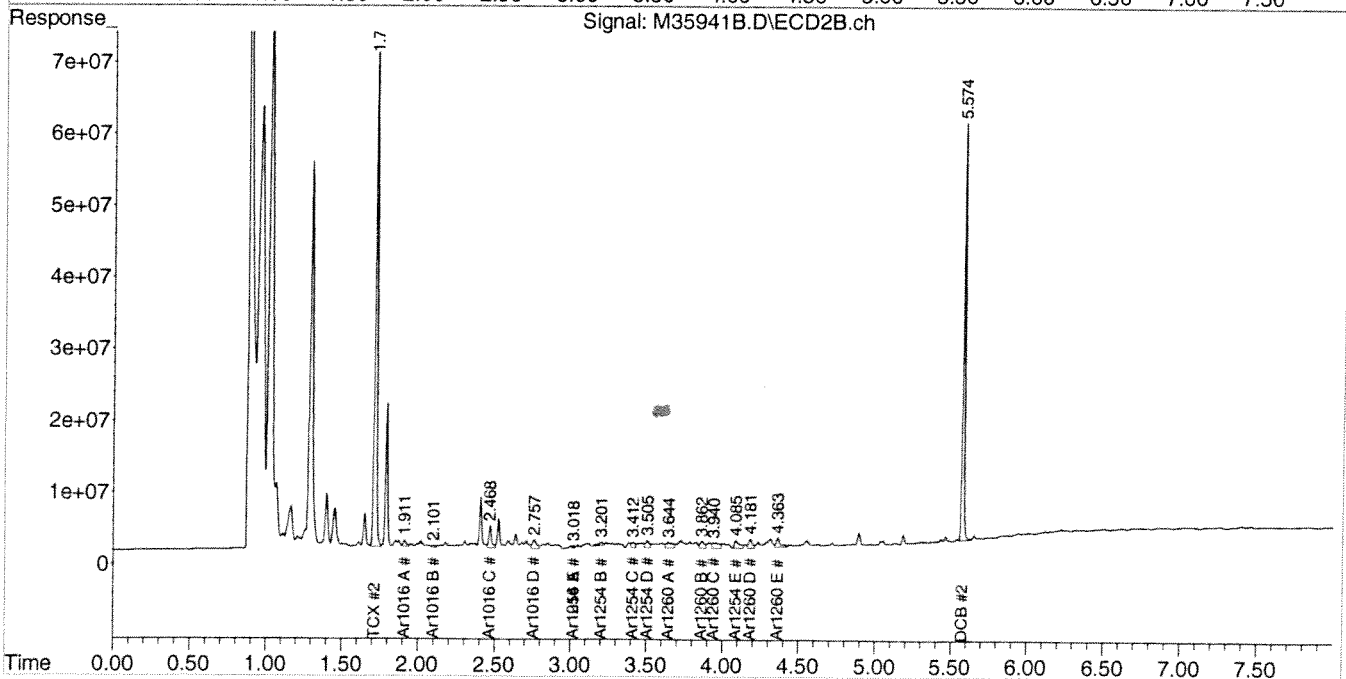
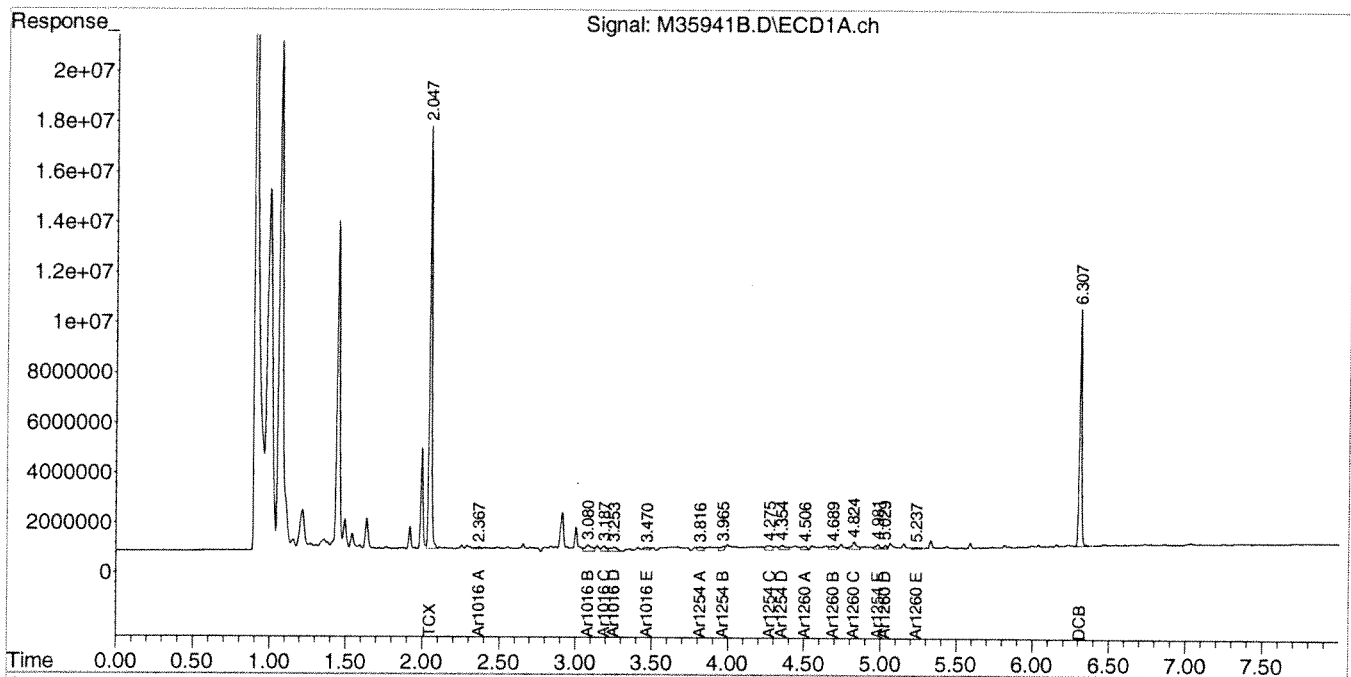
COMMENTS: Results are expressed on a dry weight basis.



Data Path : C:\msdchem\1\DATA\021011-M\  
Data File : M35941B.D  
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch  
Acq On : 10 Feb 2011 10:18 pm  
Operator : JK  
Sample : B020711PSOX,RR,,A/C  
Misc : SOIL  
ALS Vial : 17 Sample Multiplier: 1

Integration File signal 1: events.e  
Integration File signal 2: events2.e  
Quant Time: Feb 10 22:50:56 2011  
Quant Method : C:\msdchem\1\METHODS\PCB020711.M  
Quant Title : SW-846 METHOD 8082 Aroclor 1016/1260/1254  
QLast Update : Mon Feb 07 15:22:15 2011  
Response via : Initial Calibration  
Integrator: ChemStation

Volume Inj. : 2 uL  
Signal #1 Phase : STX-CLPPesticides Signal #2 Phase: STX-CLPPesticides  
Signal #1 Info : 30 m x 0.25mm x 0 Signal #2 Info : 30 m x 0.25mm x 0.25 um



Ms. Amy Wallace  
Woodard & Curran  
41 Hutchins Drive  
Portland ME 04102

February 11, 2011

**SAMPLE DATA**

**CLIENT SAMPLE ID**

**Project Name:** USM Gorham  
**Project Number:** 224164  
**Field Sample ID:** AH-CBK-001

**Lab Sample ID:** 68987-1  
**Matrix:** Solid  
**Percent Solid:** 98  
**Dilution Factor:** 115  
**Collection Date:** 02/03/11  
**Lab Receipt Date:** 02/04/11  
**Extraction Date:** 02/04/11  
**Analysis Date:** 02/10/11

**PCB ANALYTICAL RESULTS**

COMPOUND	Quantitation Limit $\mu\text{g/kg}$	Results $\mu\text{g/kg}$
PCB-1016	3800	U
PCB-1221	3800	U
PCB-1232	3800	U
PCB-1242	3800	U
PCB-1248	3800	U
PCB-1254	3800	<b>30000</b>
PCB-1260	3800	U
<b><u>Surrogate Standard Recovery</u></b>		
2,4,5,6-Tetrachloro-m-xylene	55	%
Decachlorobiphenyl	86	%
U=Undetected J=Estimated E=Exceeds Calibration Range B=Detected in		

METHODOLOGY: Sample analysis conducted according to Test Methods for Evaluating Solid Waste, SW-846 Method 8082.

Sample preparation conducted according to Test Methods for Evaluating Solid Waste, SW-846 Method 3540C.

COMMENTS: Results are expressed on a dry weight basis.

PCB  
COLUMN RELATIVE PERCENT DIFFERENCE

Instrument ID: M  
GC Column #1: STX-CLPesticides I  
Column ID: 0.25 mm  
GC Column #2: STX-CLPesticides II  
Column ID: 0.25 mm

SDG: 68987  
Sample: 68987-1,1:10,,A/C  
Data File: M35896.D  
Dilution Factor: 115.1

COMPOUND	Column #1	Column #2		
	SAMPLE RESULT (ug/kg)	SAMPLE RESULT (ug/kg)	RPD	#
PCB 1254	29995	28606	4.7	

# Column to be used to flag RPD values greater than QC limit of 40%

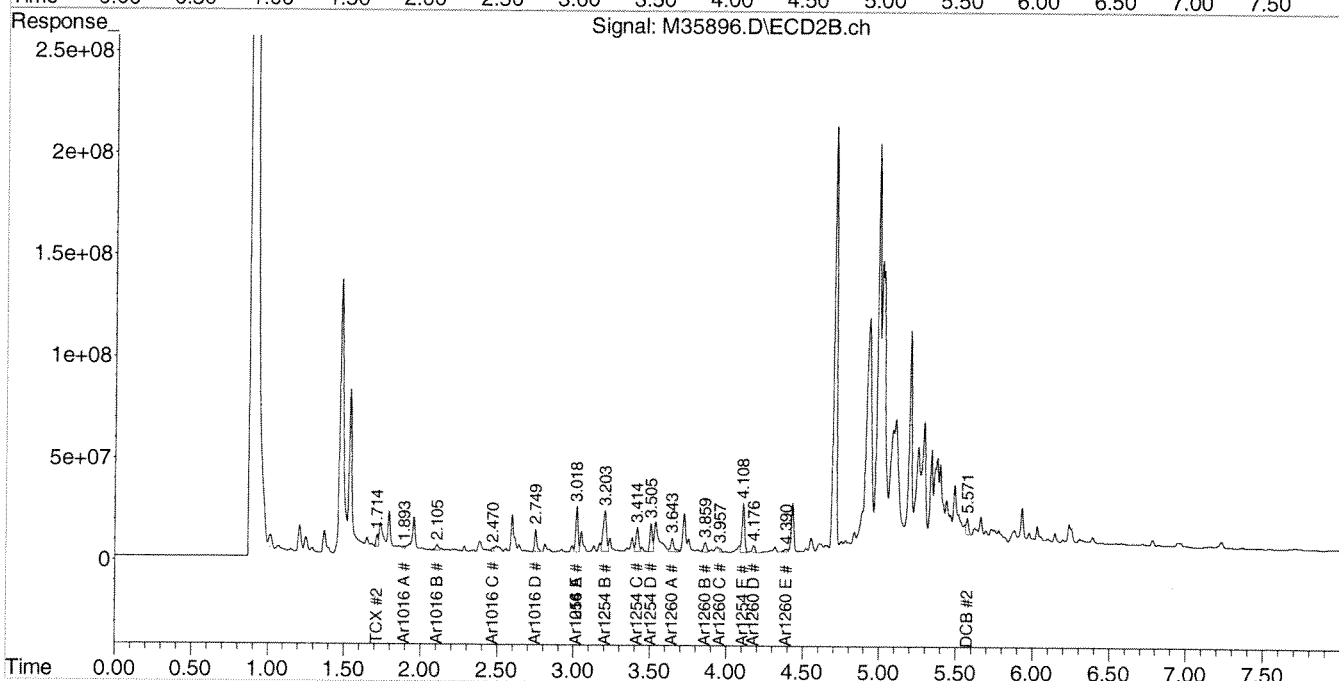
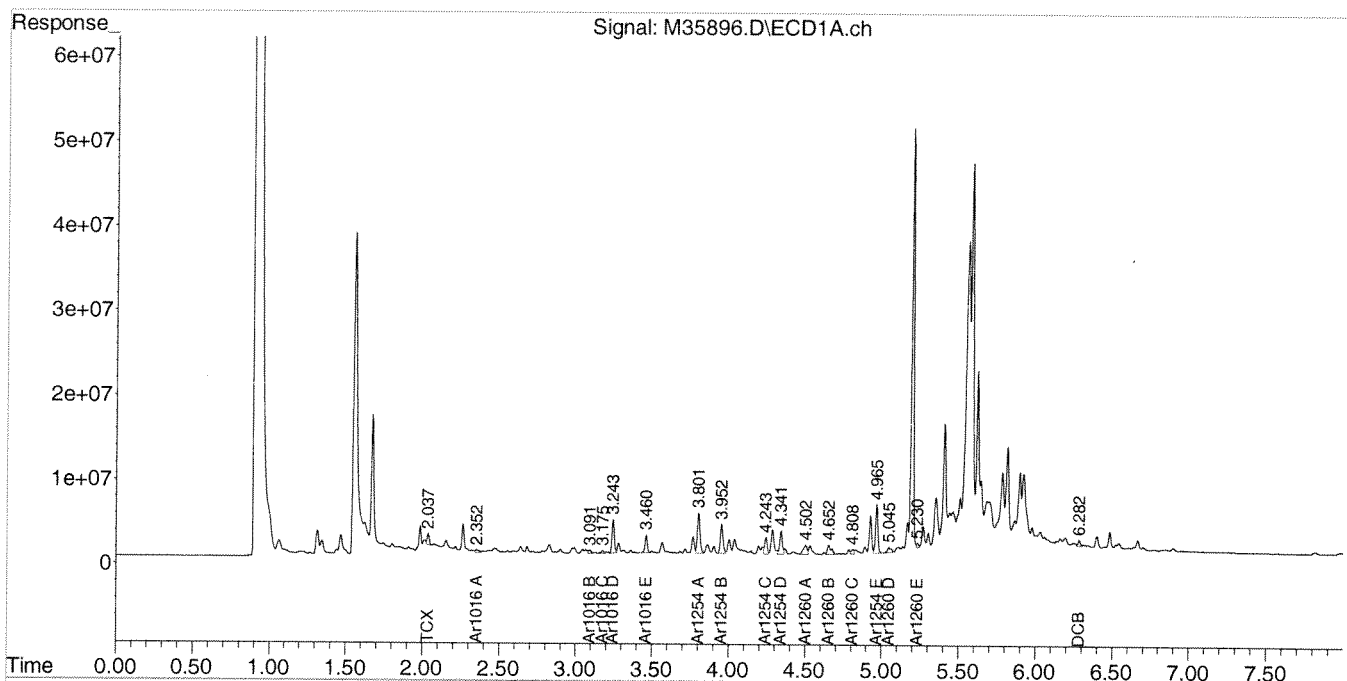
\* Values outside QC limits

Comments: \_\_\_\_\_

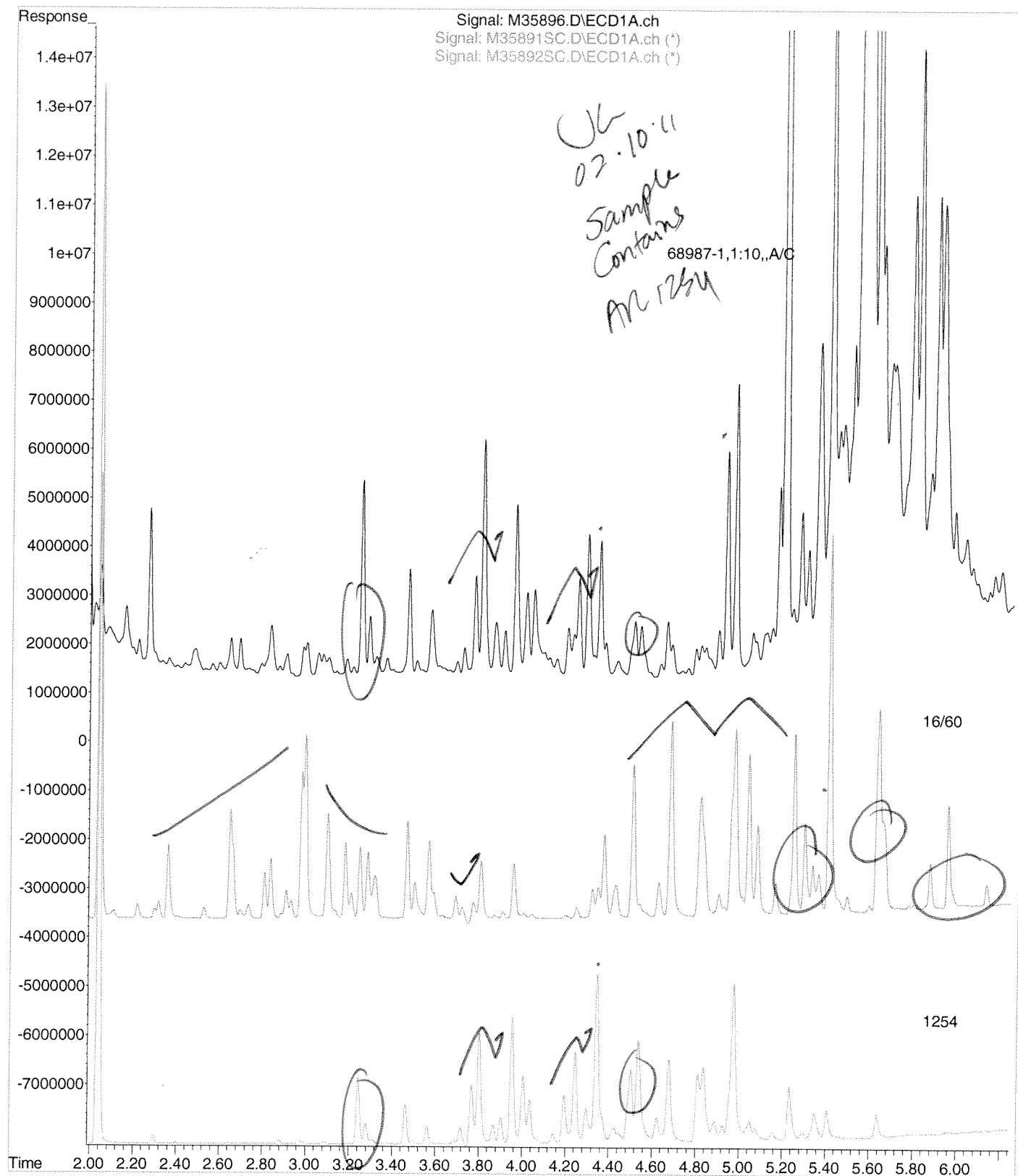
Data Path : C:\msdchem\1\DATA\021011-M\  
Data File : M35896.D  
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch  
Acq On : 10 Feb 2011 11:10 am  
Operator : JK  
Sample : 68987-1,1:10,,A/C  
Misc : SOIL  
ALS Vial : 9 Sample Multiplier: 1

Integration File signal 1: events.e  
Integration File signal 2: events2.e  
Quant Time: Feb 10 15:02:57 2011  
Quant Method : C:\msdchem\1\METHODS\PCB020711.M  
Quant Title : SW-846 METHOD 8082 Aroclor 1016/1260/1254  
QLast Update : Mon Feb 07 15:27:39 2011  
Response via : Initial Calibration  
Integrator: ChemStation

Volume Inj. : 2 uL  
Signal #1 Phase : STX-CLPPesticides Signal #2 Phase: STX-CLPPesticides  
Signal #1 Info : 30 m x 0.25mm x 0 Signal #2 Info : 30 m x 0.25mm x 0.25 um



File :C:\msdchem\1\DATA\021011-M\M35896.D  
Operator : JK  
Acquired : 10 Feb 2011 11:10 am using AcqMethod PEST.M  
Instrument : Instrument M  
Sample Name: 68987-1,1:10,,A/C  
Misc Info : SOIL  
Vial Number: 9



Ms. Amy Wallace  
Woodard & Curran  
41 Hutchins Drive  
Portland ME 04102

February 11, 2011

**SAMPLE DATA**

**CLIENT SAMPLE ID**  
**Project Name:** USM Gorham  
**Project Number:** 224164  
**Field Sample ID:** AH-CBK-002

**Lab Sample ID:** 68987-2  
**Matrix:** Solid  
**Percent Solid:** 99  
**Dilution Factor:** 11  
**Collection Date:** 02/03/11  
**Lab Receipt Date:** 02/04/11  
**Extraction Date:** 02/04/11  
**Analysis Date:** 02/10/11

PCB ANALYTICAL RESULTS		
COMPOUND	Quantitation Limit $\mu\text{g/kg}$	Results $\mu\text{g/kg}$
PCB-1016	360	U
PCB-1221	360	U
PCB-1232	360	U
PCB-1242	360	U
PCB-1248	360	U
PCB-1254	360	<b>3910</b>
PCB-1260	360	U
<b>Surrogate Standard Recovery</b>		
2,4,5,6-Tetrachloro-m-xylene	118	%
Decachlorobiphenyl	44	%
U=Undetected J=Estimated E=Exceeds Calibration Range B=Detected in		

METHODOLOGY: Sample analysis conducted according to Test Methods for Evaluating Solid Waste, SW-846 Method 8082.

Sample preparation conducted according to Test Methods for Evaluating Solid Waste, SW-846 Method 3540C.

COMMENTS: Results are expressed on a dry weight basis.

PCB  
COLUMN RELATIVE PERCENT DIFFERENCE

Instrument ID: M

SDG: 68987

GC Column #1: STX-CLPesticides I

Sample: 68987-2,1:2,,A/C

Column ID: 0.25 mm

Data File: M35897.D

GC Column #2: STX-CLPesticides II

Dilution Factor: 11.1

Column ID: 0.25 mm

Column #1		Column #2		#
COMPOUND	SAMPLE RESULT (ug/kg)	SAMPLE RESULT (ug/kg)	RPD	
PCB 1254	3906	3510	10.7	

# Column to be used to flag RPD values greater than QC limit of 40%

\* Values outside QC limits

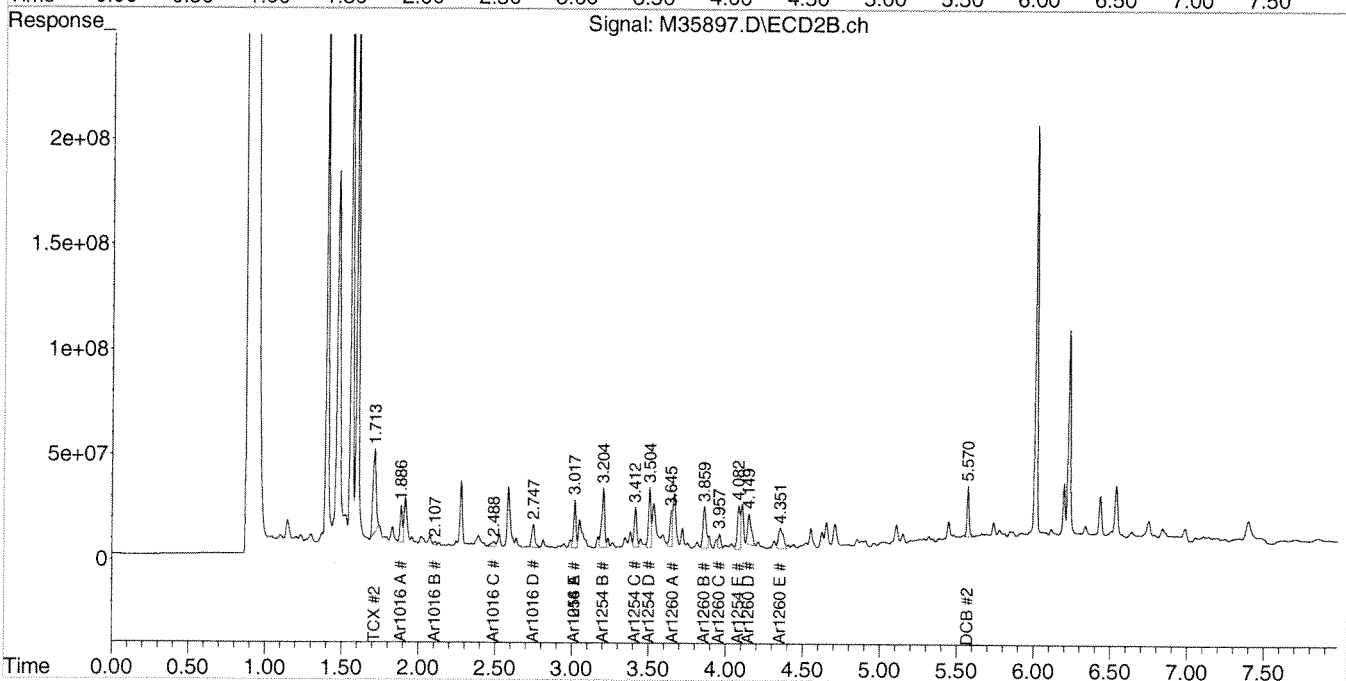
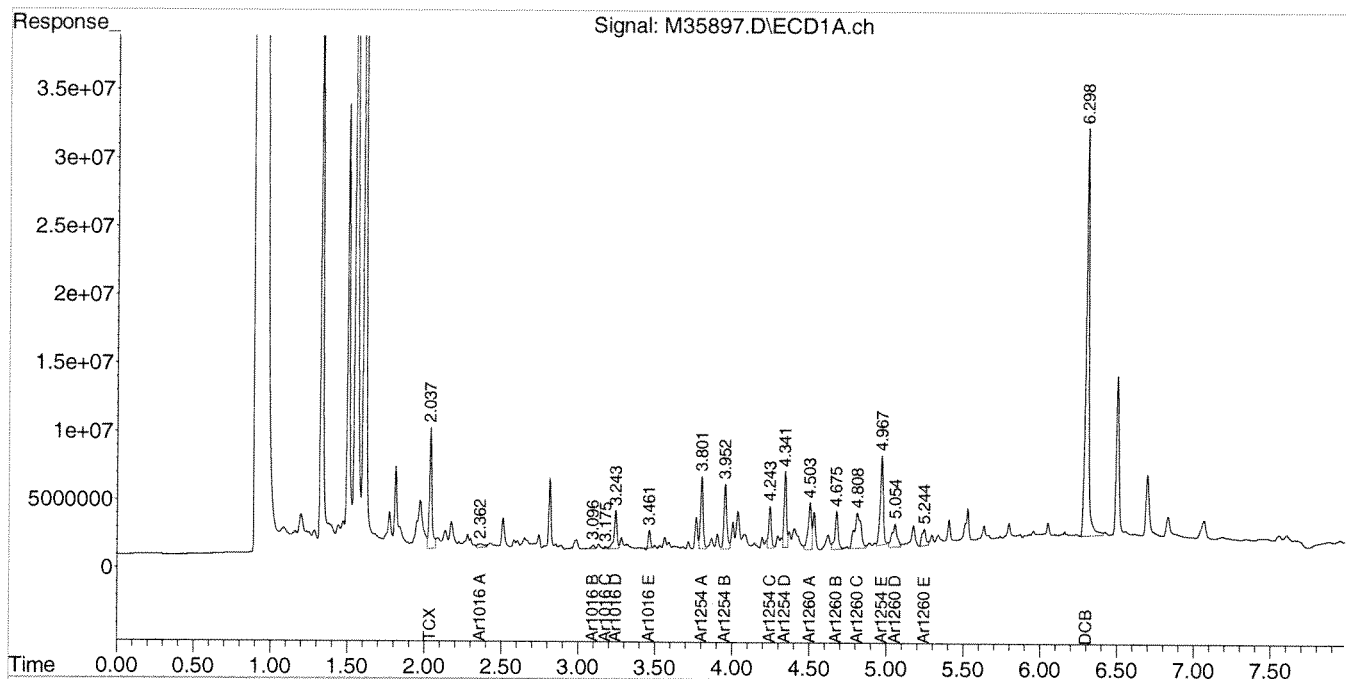
Comments: \_\_\_\_\_



Data Path : C:\msdchem\1\DATA\021011-M\  
Data File : M35897.D  
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch  
Acq On : 10 Feb 2011 11:21 am  
Operator : JK  
Sample : 68987-2,1:2,,A/C  
Misc : SOIL  
ALS Vial : 10 Sample Multiplier: 1

Integration File signal 1: events.e  
Integration File signal 2: events2.e  
Quant Time: Feb 10 15:07:19 2011  
Quant Method : C:\msdchem\1\METHODS\PCB020711.M  
Quant Title : SW-846 METHOD 8082 Aroclor 1016/1260/1254  
QLast Update : Mon Feb 07 15:27:39 2011  
Response via : Initial Calibration  
Integrator: ChemStation

Volume Inj. : 2 uL  
Signal #1 Phase : STX-CLPPesticides Signal #2 Phase: STX-CLPPesticides  
Signal #1 Info : 30 m x 0.25mm x 0 Signal #2 Info : 30 m x 0.25mm x 0.25 um



Ms. Amy Wallace  
Woodard & Curran  
41 Hutchins Drive  
Portland ME 04102

February 11, 2011

**SAMPLE DATA**

**CLIENT SAMPLE ID**

**Project Name:** USM Gorham  
**Project Number:** 224164  
**Field Sample ID:** AH-CBK-003

**Lab Sample ID:** 68987-3  
**Matrix:** Solid  
**Percent Solid:** 97  
**Dilution Factor:** 421  
**Collection Date:** 02/03/11  
**Lab Receipt Date:** 02/04/11  
**Extraction Date:** 02/04/11  
**Analysis Date:** 02/10/11

**PCB ANALYTICAL RESULTS**

COMPOUND	Quantitation Limit $\mu\text{g/kg}$	Results $\mu\text{g/kg}$
PCB-1016	13900	U
PCB-1221	13900	U
PCB-1232	13900	U
PCB-1242	13900	U
PCB-1248	13900	U
PCB-1254	13900	<b>52900</b>
PCB-1260	13900	U
<b><u>Surrogate Standard Recovery</u></b>		
2,4,5,6-Tetrachloro-m-xylene	*	%
Decachlorobiphenyl	*	%
U=Undetected J=Estimated E=Exceeds Calibration Range B=Detected in		

METHODOLOGY: Sample analysis conducted according to Test Methods for Evaluating Solid Waste, SW-846 Method 8082.

Sample preparation conducted according to Test Methods for Evaluating Solid Waste, SW-846 Method 3540C.

COMMENTS: Results are expressed on a dry weight basis.  
\* The surrogates were diluted out.

PCB  
COLUMN RELATIVE PERCENT DIFFERENCE

Instrument ID: M	SDG:
GC Column #1: STX-CLPesticides I	Sample: 68987-3,1:20,,A/C
Column ID: 0.25 mm	Data File: M35898.D
GC Column #2: STX-CLPesticides II	Dilution Factor: 420.5
Column ID: 0.25 mm	

Column #1		Column #2		#
COMPOUND	SAMPLE RESULT (ug/kg)	SAMPLE RESULT (ug/kg)	RPD	
PCB 1254	52955	48706	8.4	

# Column to be used to flag RPD values greater than QC limit of 40%

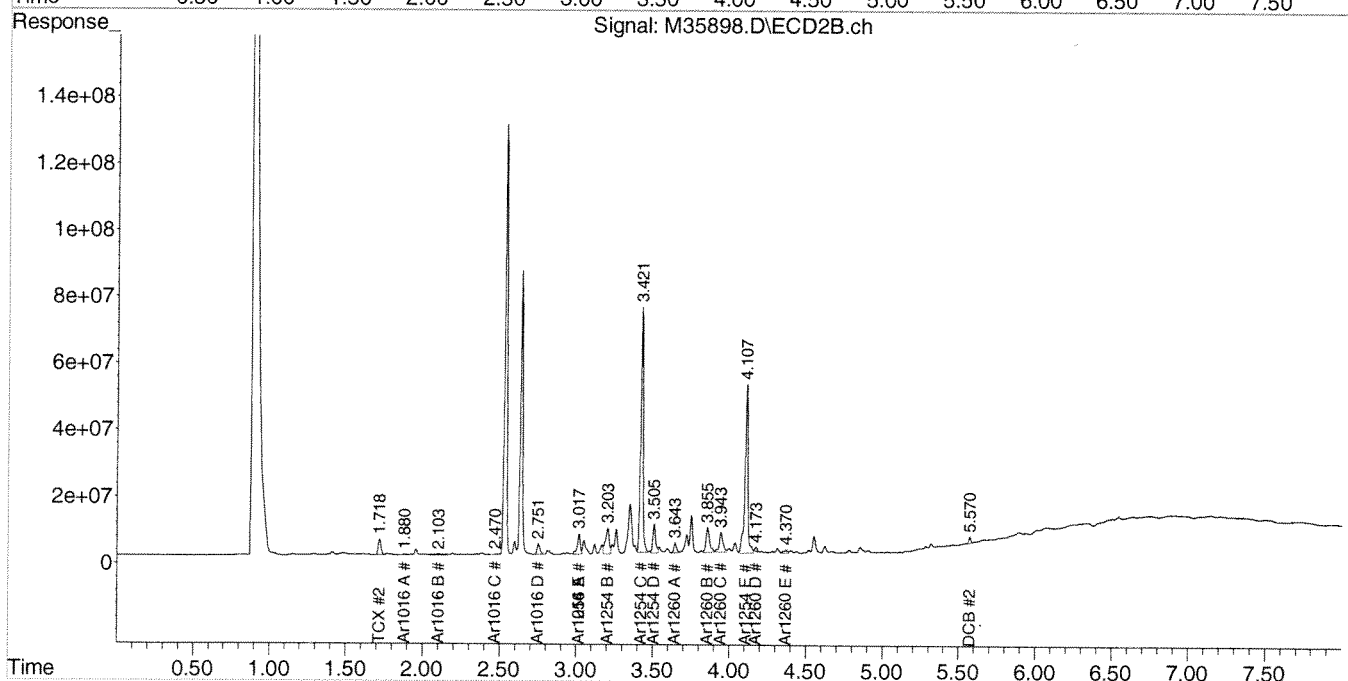
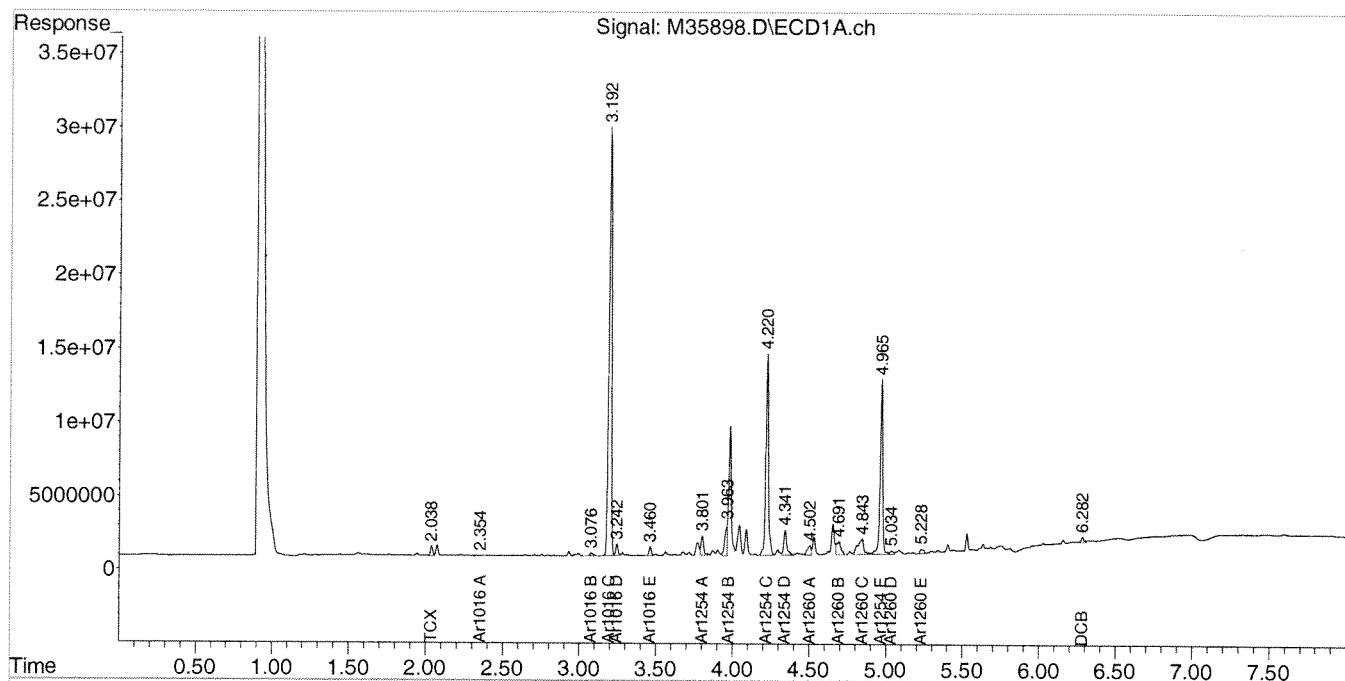
\* Values outside QC limits

Comments: \_\_\_\_\_

Data Path : C:\msdchem\1\DATA\021011-M\  
Data File : M35898.D  
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch  
Acq On : 10 Feb 2011 11:31 am  
Operator : JK  
Sample : 68987-3,1:20,,A/C  
Misc : SOIL  
ALS Vial : 11 Sample Multiplier: 1

Integration File signal 1: events.e  
Integration File signal 2: events2.e  
Quant Time: Feb 10 15:11:40 2011  
Quant Method : C:\msdchem\1\METHODS\PCB020711.M  
Quant Title : SW-846 METHOD 8082 Aroclor 1016/1260/1254  
QLast Update : Mon Feb 07 15:27:39 2011  
Response via : Initial Calibration  
Integrator: ChemStation

Volume Inj. : 2 uL  
Signal #1 Phase : STX-CLPPesticides Signal #2 Phase: STX-CLPPesticides  
Signal #1 Info : 30 m x 0.25mm x 0 Signal #2 Info : 30 m x 0.25mm x 0.25 um



Ms. Amy Wallace  
Woodard & Curran  
41 Hutchins Drive  
Portland ME 04102

February 11, 2011

**SAMPLE DATA**

**CLIENT SAMPLE ID**  
**Project Name:** USM Gorham  
**Project Number:** 224164  
**Field Sample ID:** AH-CBC-004

**Lab Sample ID:** 68987-4  
**Matrix:** Solid  
**Percent Solid:** 99  
**Dilution Factor:** 275  
**Collection Date:** 02/03/11  
**Lab Receipt Date:** 02/04/11  
**Extraction Date:** 02/04/11  
**Analysis Date:** 02/10/11

**PCB ANALYTICAL RESULTS**

COMPOUND	Quantitation Limit $\mu\text{g/kg}$	Results $\mu\text{g/kg}$
PCB-1016	9080	U
PCB-1221	9080	U
PCB-1232	9080	U
PCB-1242	9080	U
PCB-1248	9080	U
PCB-1254	9080	<b>149000</b>
PCB-1260	9080	U
<b><u>Surrogate Standard Recovery</u></b>		
2,4,5,6-Tetrachloro-m-xylene	*	%
Decachlorobiphenyl	*	%
U=Undetected J=Estimated E=Exceeds Calibration Range B=Detected in		

METHODOLOGY: Sample analysis conducted according to Test Methods for Evaluating Solid Waste, SW-846 Method 8082.

Sample preparation conducted according to Test Methods for Evaluating Solid Waste, SW-846 Method 3540C.

COMMENTS: Results are expressed on a dry weight basis.  
\* The surrogates were diluted out.

PCB  
COLUMN RELATIVE PERCENT DIFFERENCE

Instrument ID: M	SDG: 68987
GC Column #1: STX-CLPesticides I	Sample: 68987-4,1:200,,A/C
Column ID: 0.25 mm	Data File: M35899.D
GC Column #2: STX-CLPesticides II	Dilution Factor: 274.7
Column ID: 0.25 mm	

Column #1		Column #2	
COMPOUND	SAMPLE RESULT (ug/kg)	SAMPLE RESULT (ug/kg)	RPD #
PCB 1254	143938	148915	3.4

# Column to be used to flag RPD values greater than QC limit of 40%

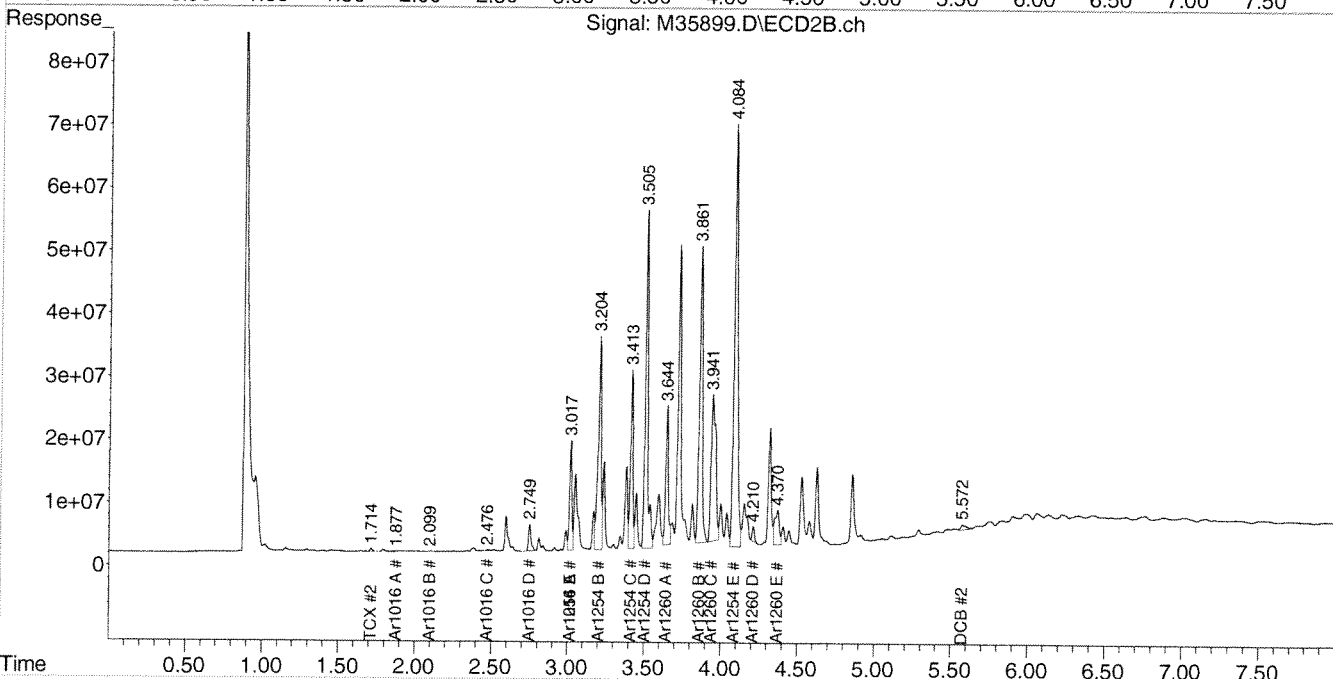
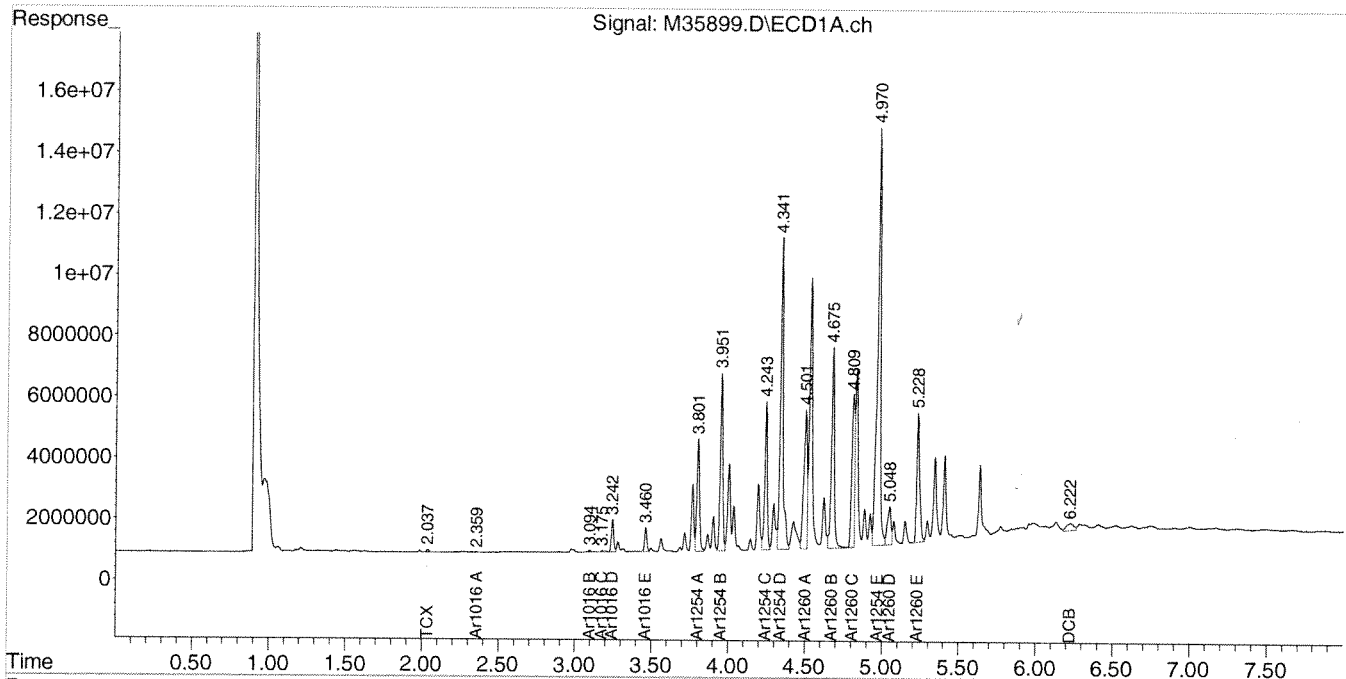
\* Values outside QC limits

Comments: \_\_\_\_\_

Data Path : C:\msdchem\1\DATA\021011-M\  
Data File : M35899.D  
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch  
Acq On : 10 Feb 2011 11:41 am  
Operator : JK  
Sample : 68987-4,1:200,,A/C  
Misc : SOIL  
ALS Vial : 12 Sample Multiplier: 1

Integration File signal 1: events.e  
Integration File signal 2: events2.e  
Quant Time: Feb 10 15:13:16 2011  
Quant Method : C:\msdchem\1\METHODS\PCB020711.M  
Quant Title : SW-846 METHOD 8082 Aroclor 1016/1260/1254  
QLast Update : Mon Feb 07 15:27:39 2011  
Response via : Initial Calibration  
Integrator: ChemStation

Volume Inj. : 2 uL  
Signal #1 Phase : STX-CLPPesticides Signal #2 Phase: STX-CLPPesticides  
Signal #1 Info : 30 m x 0.25mm x 0 Signal #2 Info : 30 m x 0.25mm x 0.25 um





Ms. Amy Wallace  
Woodard & Curran  
41 Hutchins Drive  
Portland ME 04102

February 11, 2011

**SAMPLE DATA**

**CLIENT SAMPLE ID**  
**Project Name:** USM Gorham  
**Project Number:** 224164  
**Field Sample ID:** AH-CBC-006

**Lab Sample ID:** 68987-5  
**Matrix:** Solid  
**Percent Solid:** 99  
**Dilution Factor:** 50  
**Collection Date:** 02/03/11  
**Lab Receipt Date:** 02/04/11  
**Extraction Date:** 02/04/11  
**Analysis Date:** 02/10/11

PCB ANALYTICAL RESULTS		
COMPOUND	Quantitation Limit $\mu\text{g/kg}$	Results $\mu\text{g/kg}$
PCB-1016	1650	U
PCB-1221	1650	U
PCB-1232	1650	U
PCB-1242	1650	U
PCB-1248	1650	U
PCB-1254	1650	<b>43400</b>
PCB-1260	1650	U
<b>Surrogate Standard Recovery</b>		
2,4,5,6-Tetrachloro-m-xylene	*	%
Decachlorobiphenyl	*	%
U=Undetected J=Estimated E=Exceeds Calibration Range B=Detected in		

METHODOLOGY: Sample analysis conducted according to Test Methods for Evaluating Solid Waste, SW-846 Method 8082.

Sample preparation conducted according to Test Methods for Evaluating Solid Waste, SW-846 Method 3540C.

COMMENTS: Results are expressed on a dry weight basis.  
\* The surrogates were diluted out.

PCB  
COLUMN RELATIVE PERCENT DIFFERENCE

Instrument ID: M	SDG: 68987
GC Column #1: STX-CLPesticides I	Sample: 68987-5,1:50,,A/C
Column ID: 0.25 mm	Data File: M35900.D
GC Column #2: STX-CLPesticides II	Dilution Factor: 50.0
Column ID: 0.25 mm	

Column #1		Column #2	
COMPOUND	SAMPLE RESULT (ug/kg)	SAMPLE RESULT (ug/kg)	RPD #
PCB 1254	42913	43397	1.1

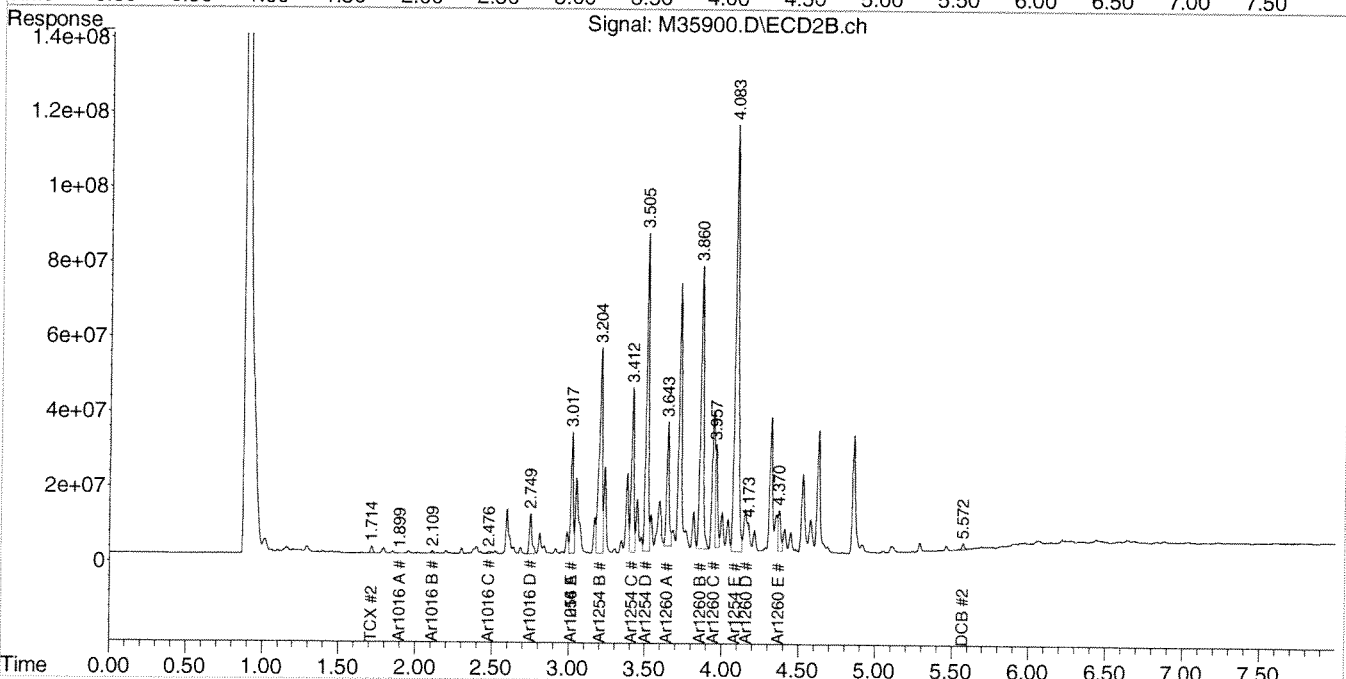
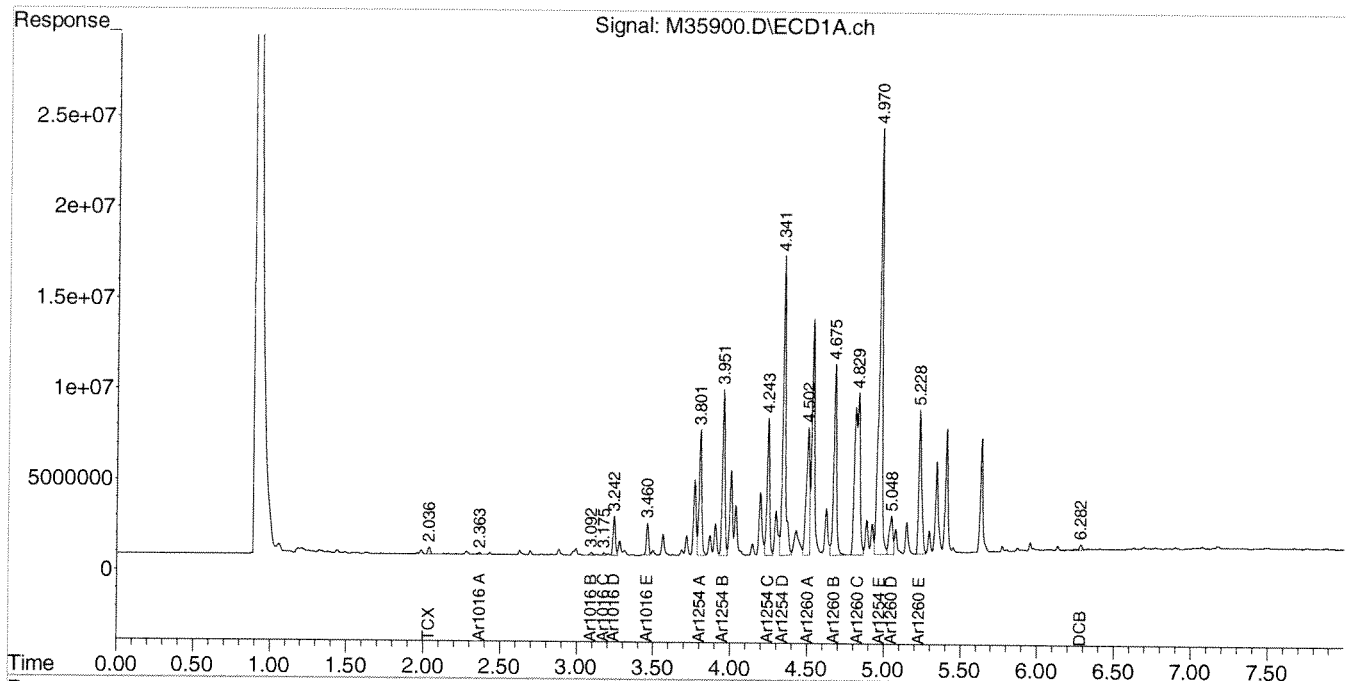
# Column to be used to flag RPD values greater than QC limit of 40%  
\* Values outside QC limits

Comments: \_\_\_\_\_

Data Path : C:\msdchem\1\DATA\021011-M\  
Data File : M35900.D  
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch  
Acq On : 10 Feb 2011 11:51 am  
Operator : JK  
Sample : 68987-5,1:50,,A/C  
Misc : SOIL  
ALS Vial : 13 Sample Multiplier: 1

Integration File signal 1: events.e  
Integration File signal 2: events2.e  
Quant Time: Feb 10 15:15:09 2011  
Quant Method : C:\msdchem\1\METHODS\PCB020711.M  
Quant Title : SW-846 METHOD 8082 Aroclor 1016/1260/1254  
QLast Update : Mon Feb 07 15:27:39 2011  
Response via : Initial Calibration  
Integrator: ChemStation

Volume Inj. : 2 uL  
Signal #1 Phase : STX-CLPPesticides Signal #2 Phase: STX-CLPPesticides  
Signal #1 Info : 30 m x 0.25mm x 0 Signal #2 Info : 30 m x 0.25mm x 0.25 um



Ms. Amy Wallace  
Woodard & Curran  
41 Hutchins Drive  
Portland ME 04102

February 14, 2011

**SAMPLE DATA**

**CLIENT SAMPLE ID**

**Project Name:** USM Gorham

**Project Number:** 224164

**Field Sample ID:** AH-CWM-008

**Lab Sample ID:** 68987-6

**Matrix:** Wipe

**Percent Solid:** N/A

**Dilution Factor:** 1.0

**Collection Date:** 02/03/11

**Lab Receipt Date:** 02/04/11

**Extraction Date:** 02/04/11

**Analysis Date:** 02/08/11

PCB ANALYTICAL RESULTS		
COMPOUND	Quantitation Limit $\mu\text{g/wipe}$	Results $\mu\text{g/wipe}$
PCB-1016	0.5	U
PCB-1221	0.5	U
PCB-1232	0.5	U
PCB-1242	0.5	U
PCB-1248	0.5	U
PCB-1254	0.5	U
PCB-1260	0.5	U
<b>Surrogate Standard Recovery</b>		
2,4,5,6-Tetrachloro-m-xylene	92	%
Decachlorobiphenyl	53	%
U=Undetected J=Estimated E=Exceeds Calibration Range B=Detected in		

METHODOLOGY: Sample analysis conducted according to Test Methods for Evaluating Solid Waste, SW-846 Method 8082.

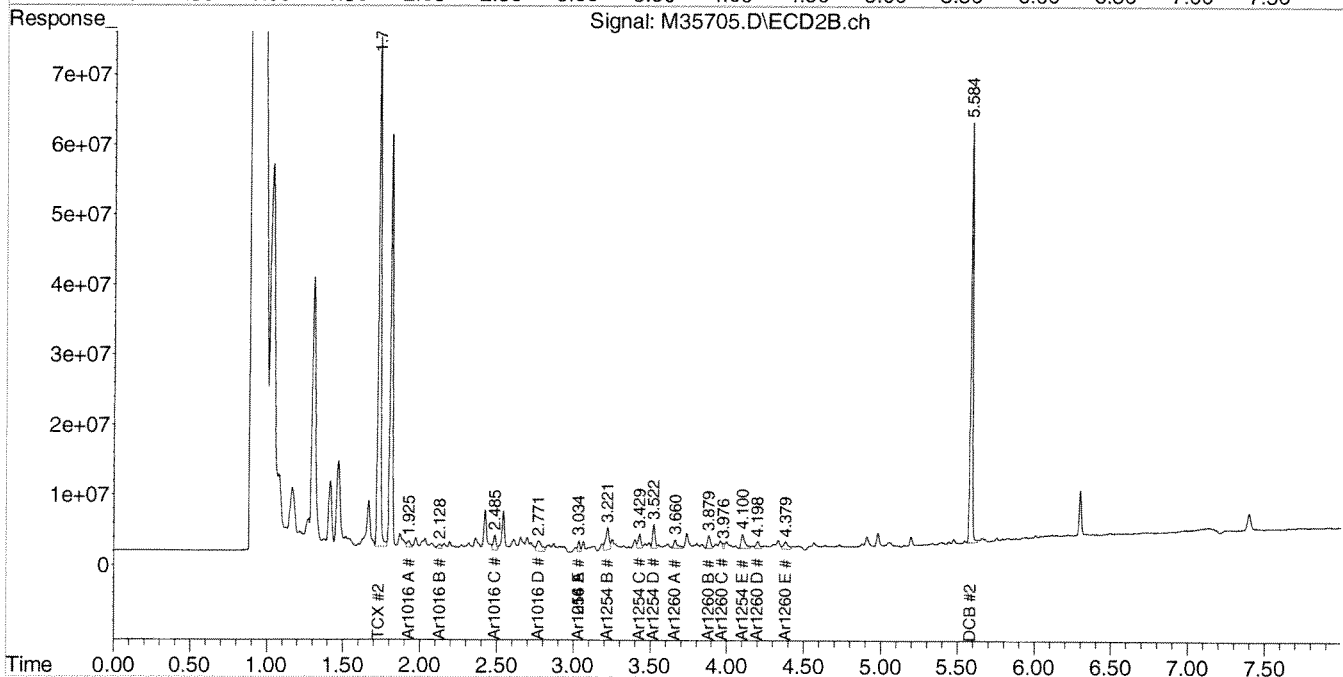
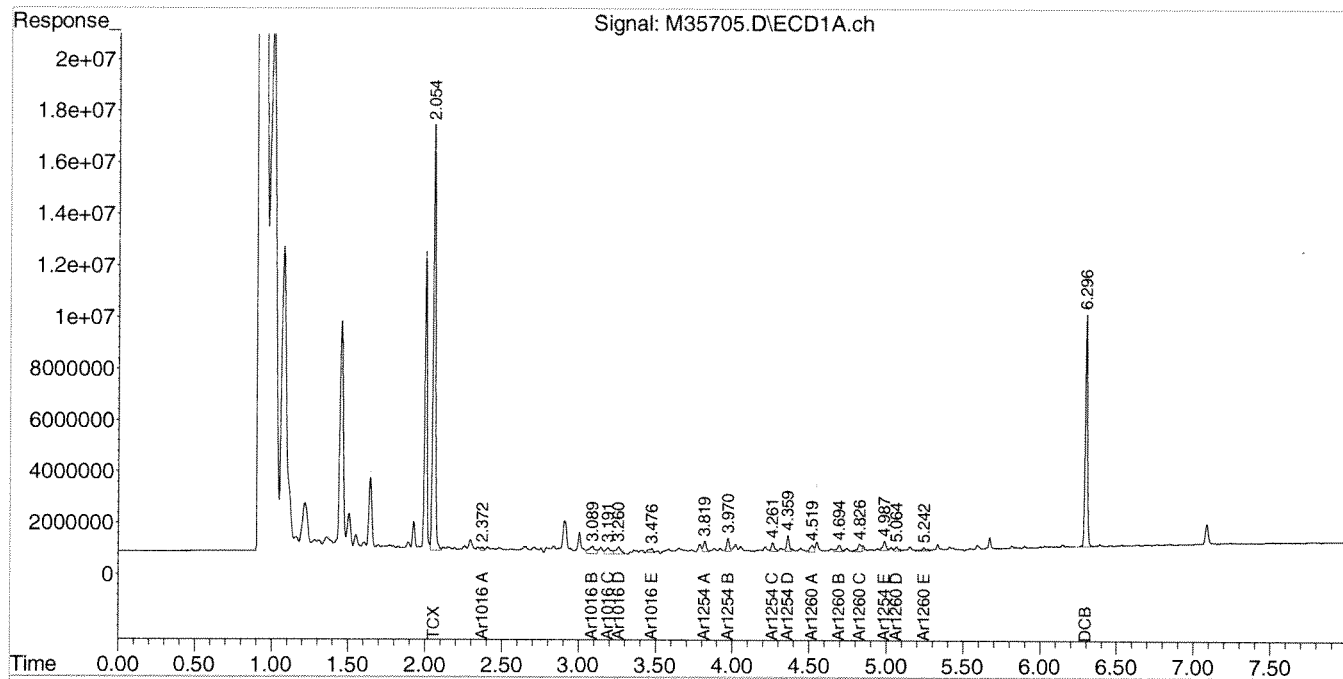
Sample preparation conducted according to Test Methods for Evaluating Solid Waste, SW-846 Method 3540C.

COMMENTS:

Data Path : C:\msdchem\1\DATA\020811-M\  
Data File : M35705.D  
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch  
Acq On : 8 Feb 2011 10:56 am  
Operator : JK  
Sample : 68987-6,,A/C  
Misc : SOIL  
ALS Vial : 9 Sample Multiplier: 1

Integration File signal 1: events.e  
Integration File signal 2: events2.e  
Quant Time: Feb 09 10:10:06 2011  
Quant Method : C:\msdchem\1\METHODS\PCB020711.M  
Quant Title : SW-846 METHOD 8082 Aroclor 1016/1260/1254  
QLast Update : Mon Feb 07 15:22:15 2011  
Response via : Initial Calibration  
Integrator: ChemStation

Volume Inj. : 2 uL  
Signal #1 Phase : STX-CLPPesticides Signal #2 Phase: STX-CLPPesticides  
Signal #1 Info : 30 m x 0.25mm x 0 Signal #2 Info : 30 m x 0.25mm x 0.25 um



Ms. Amy Wallace  
Woodard & Curran  
41 Hutchins Drive  
Portland ME 04102

February 11, 2011

**SAMPLE DATA**

**CLIENT SAMPLE ID**

---

**Project Name:** USM Gorham  
**Project Number:** 224164  
**Field Sample ID:** AH-CWM-009

**Lab Sample ID:** 68987-7  
**Matrix:** Wipe  
**Percent Solid:** N/A  
**Dilution Factor:** 1.0  
**Collection Date:** 02/03/11  
**Lab Receipt Date:** 02/04/11  
**Extraction Date:** 02/04/11  
**Analysis Date:** 02/08/11

PCB ANALYTICAL RESULTS		
COMPOUND	Quantitation Limit $\mu\text{g/wipe}$	Results $\mu\text{g/wipe}$
PCB-1016	0.5	U
PCB-1221	0.5	U
PCB-1232	0.5	U
PCB-1242	0.5	U
PCB-1248	0.5	U
PCB-1254	0.5	<b>0.6</b>
PCB-1260	0.5	U
<b><u>Surrogate Standard Recovery</u></b>		
2,4,5,6-Tetrachloro-m-xylene	96	%
Decachlorobiphenyl	55	%
U=Undetected J=Estimated E=Exceeds Calibration Range B=Detected in		

METHODOLOGY: Sample analysis conducted according to Test Methods for Evaluating Solid Waste, SW-846 Method 8082.

Sample preparation conducted according to Test Methods for Evaluating Solid Waste, SW-846 Method 3540C.

COMMENTS:

PCB  
COLUMN RELATIVE PERCENT DIFFERENCE

Instrument ID: M	SDG: 68987
GC Column #1: STX-CLPesticides I	Sample: 68987-7,,A/C
Column ID: 0.25 mm	Data File: M35706.D
GC Column #2: STX-CLPesticides II	Dilution Factor: 1.0
Column ID: 0.25 mm	

Column #1		Column #2		
COMPOUND	SAMPLE RESULT (ug/wipe)	SAMPLE RESULT (ug/wipe)	RPD	#
PCB 1254	0.6	0.5	10.9	

# Column to be used to flag RPD values greater than QC limit of 40%

\* Values outside QC limits

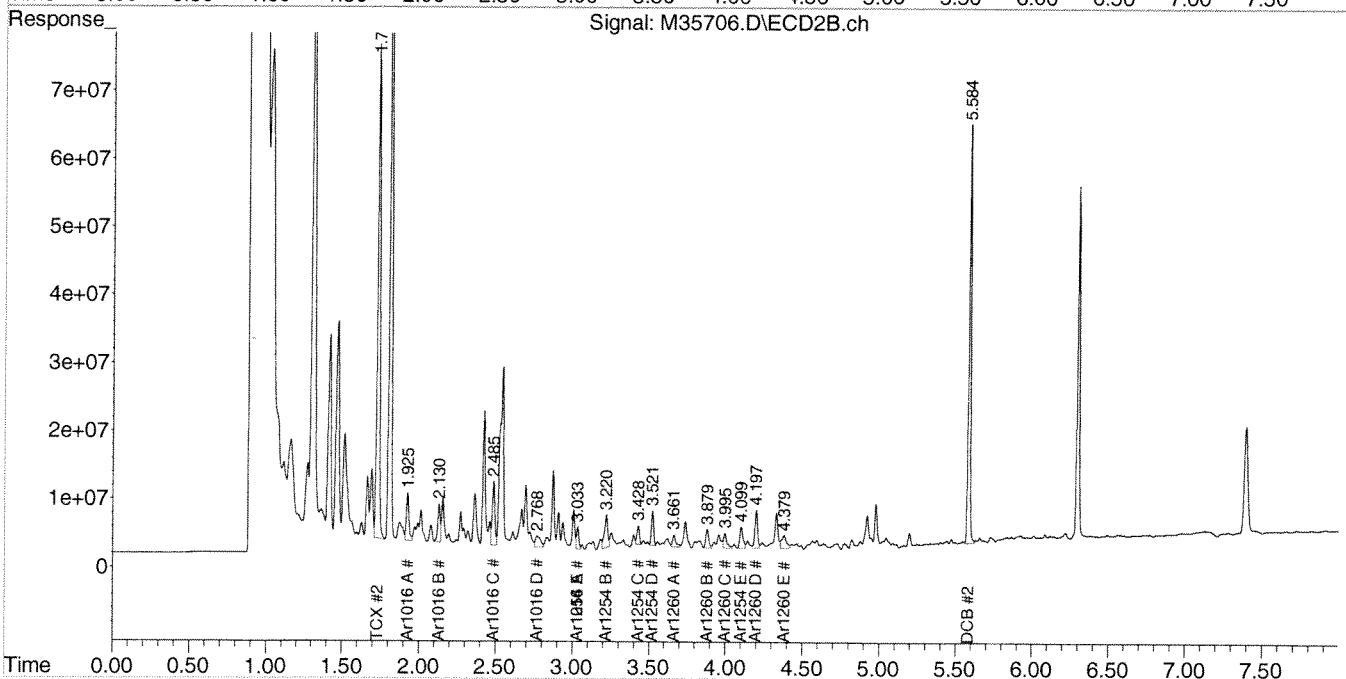
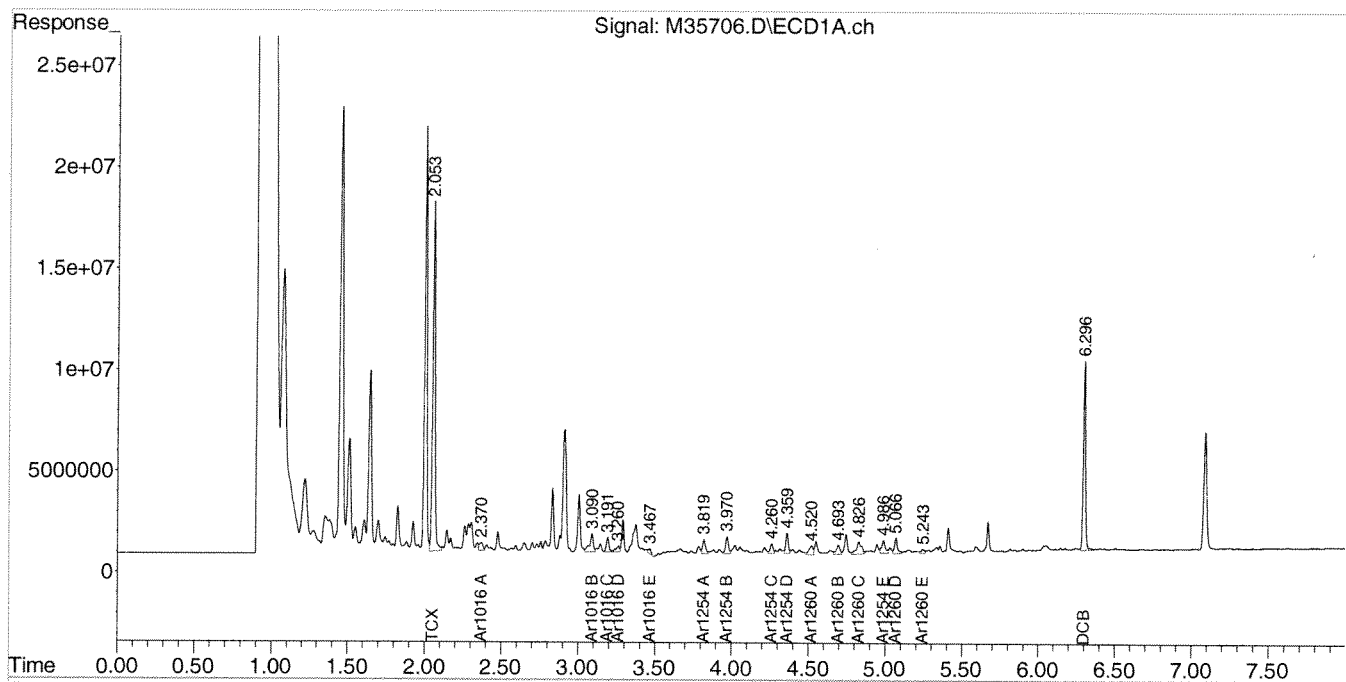
Comments: \_\_\_\_\_



Data Path : C:\msdchem\1\DATA\020811-M\  
Data File : M35706.D  
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch  
Acq On : 8 Feb 2011 11:06 am  
Operator : JK  
Sample : 68987-7,,A/C  
Misc : SOIL  
ALS Vial : 10 Sample Multiplier: 1

Integration File signal 1: events.e  
Integration File signal 2: events2.e  
Quant Time: Feb 09 10:15:56 2011  
Quant Method : C:\msdchem\1\METHODS\PCB020711.M  
Quant Title : SW-846 METHOD 8082 Aroclor 1016/1260/1254  
QLast Update : Mon Feb 07 15:22:15 2011  
Response via : Initial Calibration  
Integrator: ChemStation

Volume Inj. : 2 uL  
Signal #1 Phase : STX-CLPPesticides Signal #2 Phase: STX-CLPPesticides  
Signal #1 Info : 30 m x 0.25mm x 0 Signal #2 Info : 30 m x 0.25mm x 0.25 um



Ms. Amy Wallace  
Woodard & Curran  
41 Hutchins Drive  
Portland ME 04102

February 14, 2011

**SAMPLE DATA**

**CLIENT SAMPLE ID**

**Project Name:** USM Gorham  
**Project Number:** 224164  
**Field Sample ID:** AH-CBK-010

**Lab Sample ID:** 68987-8  
**Matrix:** Solid  
**Percent Solid:** 99  
**Dilution Factor:** 95  
**Collection Date:** 02/03/11  
**Lab Receipt Date:** 02/04/11  
**Extraction Date:** 02/04/11  
**Analysis Date:** 02/10/11

**PCB ANALYTICAL RESULTS**

COMPOUND	Quantitation Limit µg/kg	Results µg/kg
PCB-1016	3140	U
PCB-1221	3140	U
PCB-1232	3140	U
PCB-1242	3140	U
PCB-1248	3140	U
PCB-1254	3140	<b>80100</b>
PCB-1260	3140	U
<b><u>Surrogate Standard Recovery</u></b>		
2,4,5,6-Tetrachloro-m-xylene	79	%
Decachlorobiphenyl	75	%
U=Undetected J=Estimated E=Exceeds Calibration Range B=Detected in		

METHODOLOGY: Sample analysis conducted according to Test Methods for Evaluating Solid Waste, SW-846 Method 8082.

Sample preparation conducted according to Test Methods for Evaluating Solid Waste, SW-846 Method 3540C.

COMMENTS: Results are expressed on a dry weight basis.



PCB  
COLUMN RELATIVE PERCENT DIFFERENCE

Instrument ID: M  
GC Column #1: STX-CLPesticides I  
Column ID: 0.25 mm  
GC Column #2: STX-CLPesticides II  
Column ID: 0.25 mm

SDG: 68987  
Sample: 68987-8,1:10,,A/C  
Data File: M35901.D  
Dilution Factor: 95.0

COMPOUND	Column #1	Column #2		
	SAMPLE RESULT (ug/kg)	SAMPLE RESULT (ug/kg)	RPD	#
PCB 1254	80073	60411	28.0	

# Column to be used to flag RPD values greater than QC limit of 40%

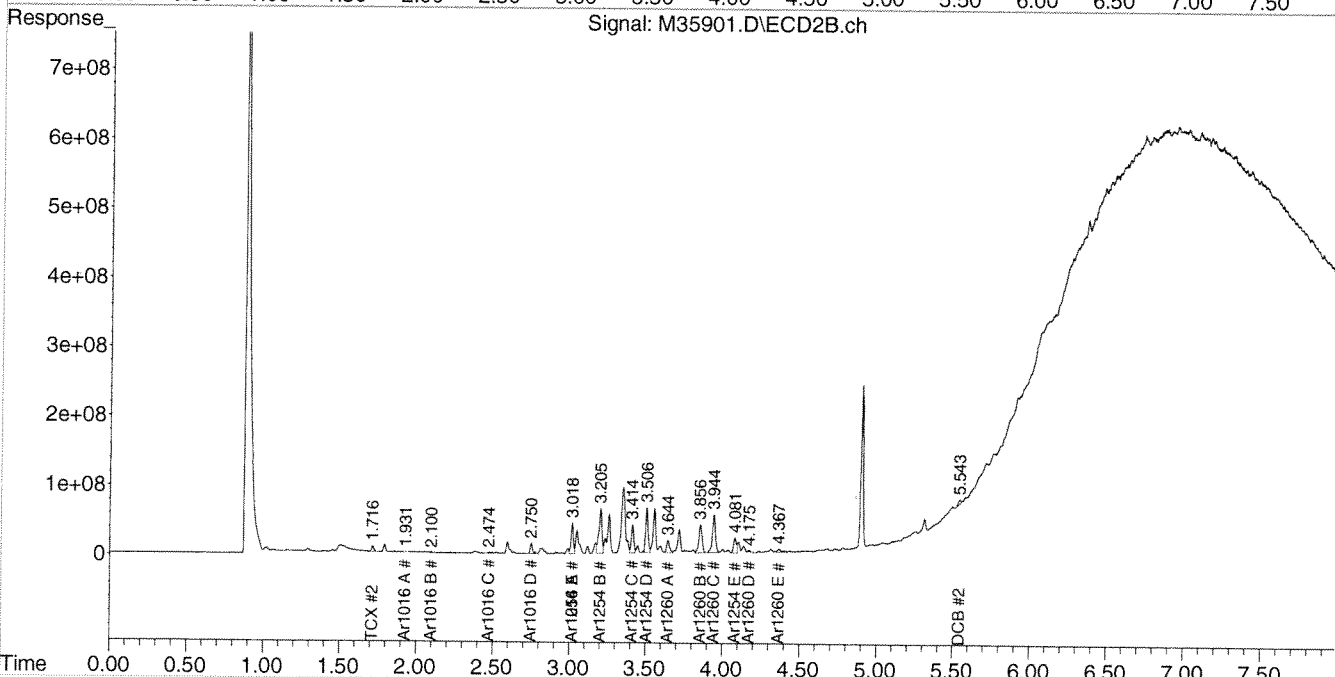
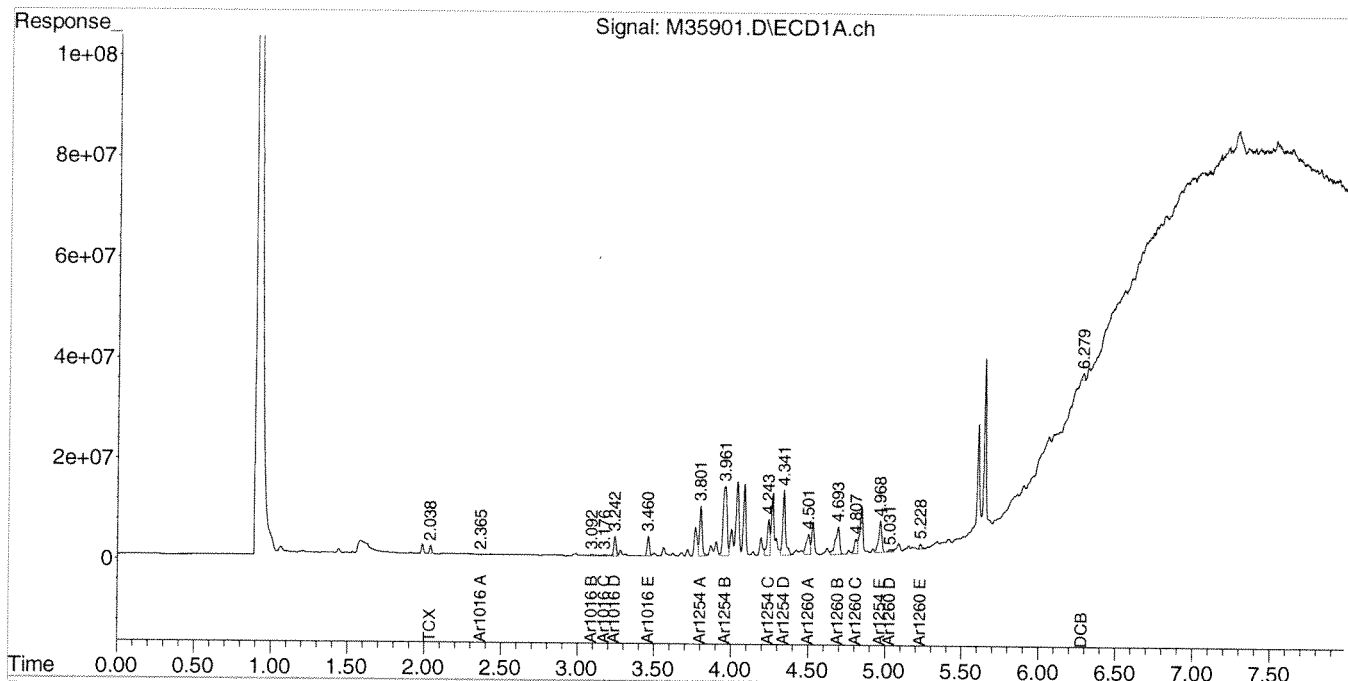
\* Values outside QC limits

Comments: \_\_\_\_\_

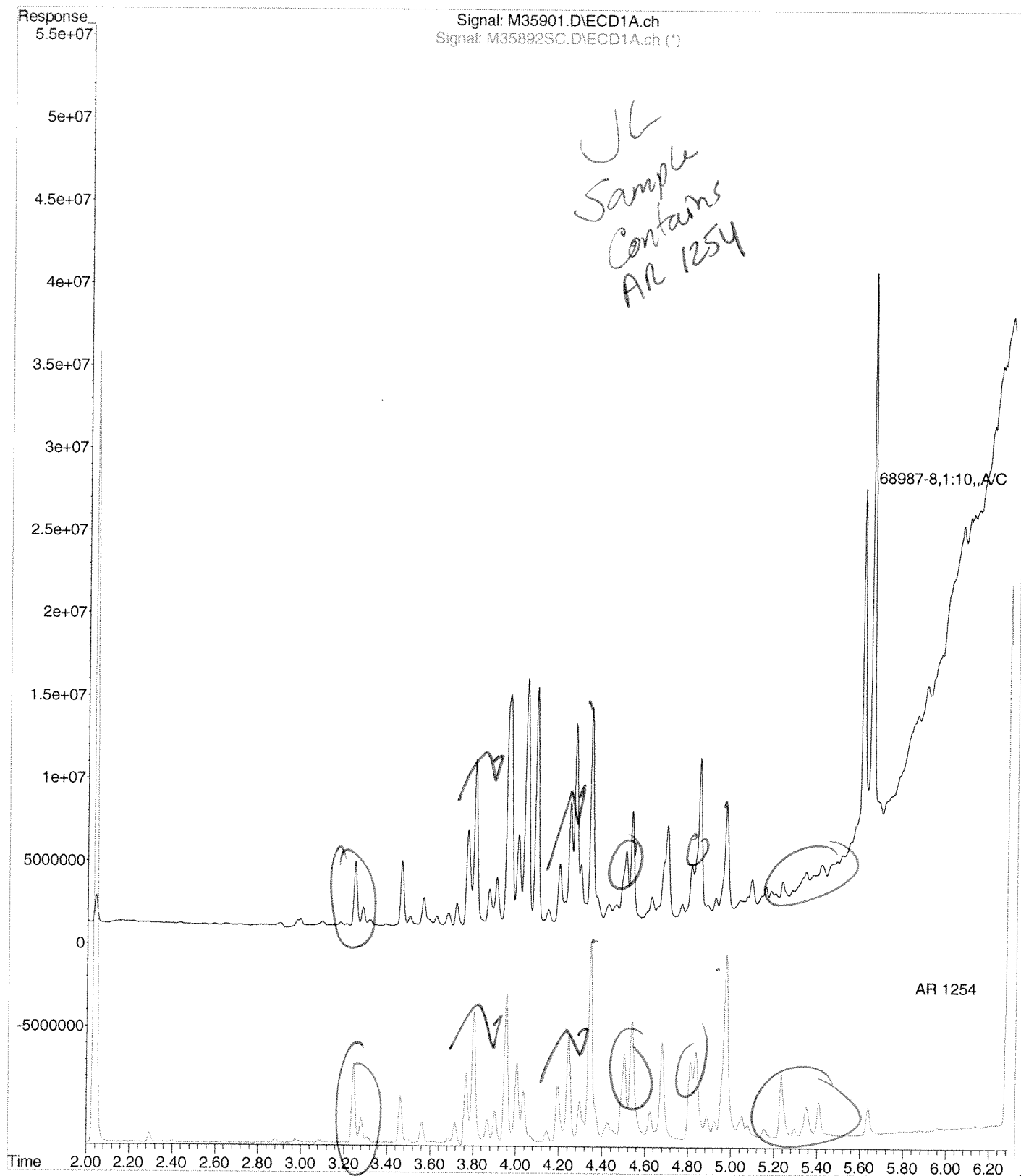
Data Path : C:\msdchem\1\DATA\021011-M\  
Data File : M35901.D  
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch  
Acq On : 10 Feb 2011 12:02 pm  
Operator : JK  
Sample : 68987-8,1:10,,A/C  
Misc : SOIL  
ALS Vial : 14 Sample Multiplier: 1

Integration File signal 1: events.e  
Integration File signal 2: events2.e  
Quant Time: Feb 10 15:17:15 2011  
Quant Method : C:\msdchem\1\METHODS\PCB020711.M  
Quant Title : SW-846 METHOD 8082 Aroclor 1016/1260/1254  
QLast Update : Mon Feb 07 15:27:39 2011  
Response via : Initial Calibration  
Integrator: ChemStation

Volume Inj. : 2 uL  
Signal #1 Phase : STX-CLPPesticides Signal #2 Phase: STX-CLPPesticides  
Signal #1 Info : 30 m x 0.25mm x 0 Signal #2 Info : 30 m x 0.25mm x 0.25 um



File :C:\msdchem\1\DATA\021011-M\M35901.D  
Operator : JK  
Acquired : 10 Feb 2011 12:02 pm using AcqMethod PEST.M  
Instrument : Instrument M  
Sample Name: 68987-8,1:10,,A/C  
Misc Info : SOIL  
Vial Number: 14



Ms. Amy Wallace  
Woodard & Curran  
41 Hutchins Drive  
Portland ME 04102

February 11, 2011

**SAMPLE DATA**

**CLIENT SAMPLE ID**

**Project Name:** USM Gorham  
**Project Number:** 224164  
**Field Sample ID:** AH-CBCQ-011

**Lab Sample ID:** 68987-9  
**Matrix:** Aqueous  
**Percent Solid:** N/A  
**Dilution Factor:** 1.0  
**Collection Date:** 02/03/11  
**Lab Receipt Date:** 02/04/11  
**Extraction Date:** 02/07/11  
**Analysis Date:** 02/10/11

**PCB ANALYTICAL RESULTS**

COMPOUND	Quantitation Limit $\mu\text{g/L}$	Results $\mu\text{g/L}$
PCB-1016	0.2	U
PCB-1221	0.2	U
PCB-1232	0.2	U
PCB-1242	0.2	U
PCB-1248	0.2	U
PCB-1254	0.2	<b>0.3 B</b>
PCB-1260	0.2	U

**Surrogate Standard Recovery**

2,4,5,6-Tetrachloro-m-xylene	74	%
Decachlorobiphenyl	48	%

U=Undetected J=Estimated E=Exceeds Calibration Range B=Detected in

METHODOLOGY: Sample analysis conducted according to Test Methods for Evaluating Solid Waste, SW-846 Method 8082.

COMMENTS:

PCB  
COLUMN RELATIVE PERCENT DIFFERENCE

Instrument ID: L	SDG: 68987
GC Column #1: STX-CLPesticides I	Sample: 68987-9
Column ID: 0.25 mm	Data File: L19473.D
GC Column #2: STX-CLPesticides II	Dilution Factor: 1.0
Column ID: 0.25 mm	

COMPOUND	Column #1	Column #2	RPD	#
	SAMPLE RESULT (ug/L)	SAMPLE RESULT (ug/L)		
PCB 1254	0.30 <i>B</i>	0.30 <i>B</i>	1.6	

# Column to be used to flag RPD values greater than QC limit of 40%

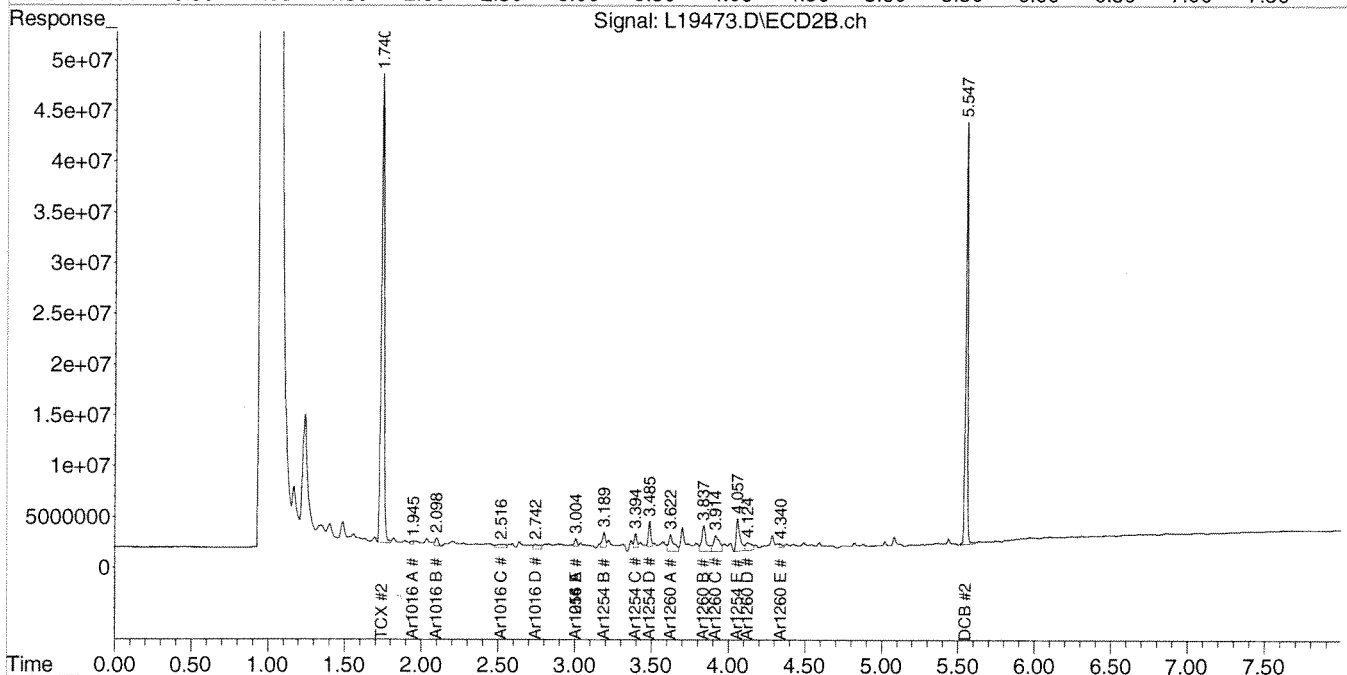
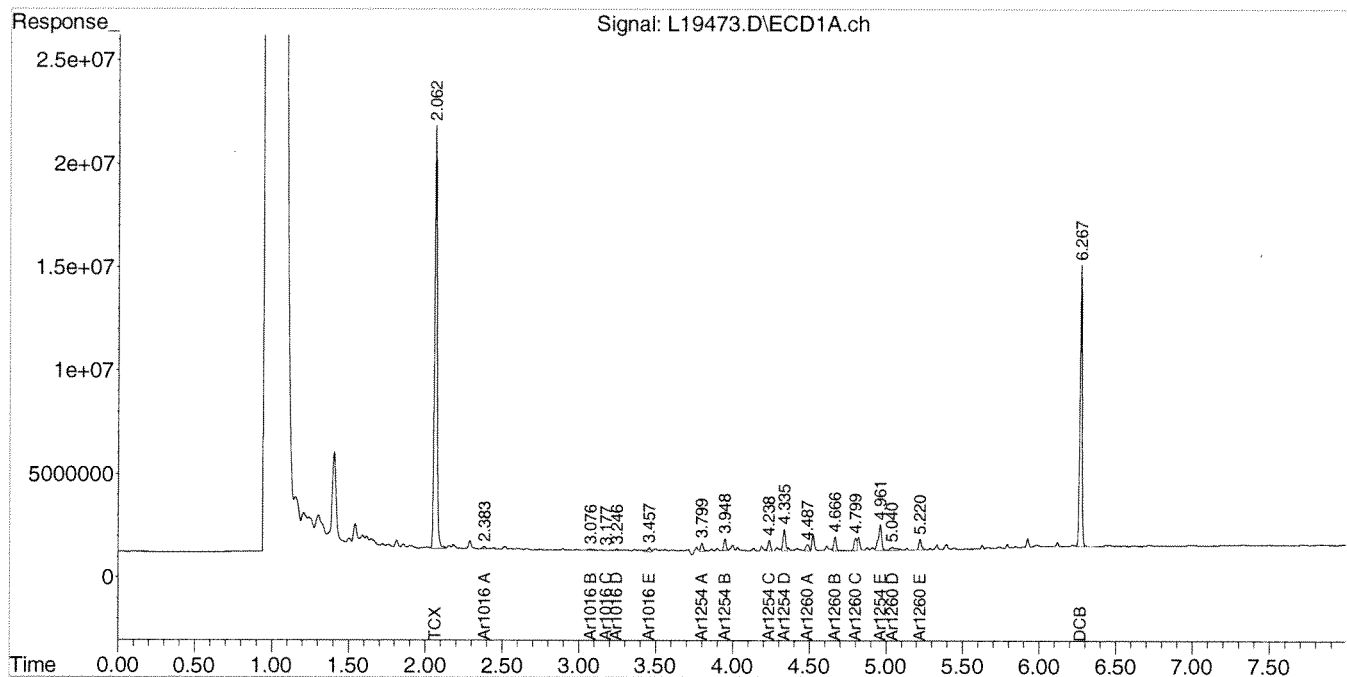
\* Values outside QC limits

Comments: \_\_\_\_\_

Data Path : C:\msdchem\1\DATA\020911-L\  
 Data File : L19473.D  
 Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch  
 Acq On : 10 Feb 2011 1:18 am  
 Operator : JK  
 Sample : 68987-9  
 Misc :  
 ALS Vial : 45 Sample Multiplier: 1

Integration File signal 1: autoint1.e  
 Integration File signal 2: autoint2.e  
 Quant Time: Feb 10 12:30:36 2011  
 Quant Method : C:\msdchem\1\METHODS\PCB020911.M  
 Quant Title : SW-846 METHOD 8082 Aroclor 1016/1260/1254  
 QLast Update : Thu Feb 10 10:23:36 2011  
 Response via : Initial Calibration  
 Integrator: ChemStation

Volume Inj. : 2 uL  
 Signal #1 Phase : STX-CLPPesticides Signal #2 Phase: STX-CLPPesticides  
 Signal #1 Info : 30 m x 0.25mm x 0 Signal #2 Info : 30 m x 0.25mm x 0.25 um





Ms. Amy Wallace  
Woodard & Curran  
41 Hutchins Drive  
Portland ME 04102

February 11, 2011

**SAMPLE DATA**

**CLIENT SAMPLE ID**

**Project Name:** USM Gorham  
**Project Number:** 224164  
**Field Sample ID:** UH-CBK-012

**Lab Sample ID:** 68987-10  
**Matrix:** Solid  
**Percent Solid:** 99  
**Dilution Factor:** 83800  
**Collection Date:** 02/03/11  
**Lab Receipt Date:** 02/04/11  
**Extraction Date:** 02/04/11  
**Analysis Date:** 02/10/11

**PCB ANALYTICAL RESULTS**

COMPOUND	Quantitation Limit $\mu\text{g/kg}$	Results $\mu\text{g/kg}$
PCB-1016	2765000	U
PCB-1221	2765000	U
PCB-1232	2765000	U
PCB-1242	2765000	U
PCB-1248	2765000	U
PCB-1254	2765000	<b>59900000</b>
PCB-1260	2765000	U
<b><u>Surrogate Standard Recovery</u></b>		
2,4,5,6-Tetrachloro-m-xylene	*	%
Decachlorobiphenyl	*	%
U=Undetected J=Estimated E=Exceeds Calibration Range B=Detected in		

METHODOLOGY: Sample analysis conducted according to Test Methods for Evaluating Solid Waste, SW-846 Method 8082.

Sample preparation conducted according to Test Methods for Evaluating Solid Waste, SW-846 Method 3540C.

COMMENTS: Results are expressed on a dry weight basis.  
\* The surrogates were diluted out.

PCB  
COLUMN RELATIVE PERCENT DIFFERENCE

Instrument ID: M	SDG: 68987
GC Column #1: STX-CLPesticides I	Sample: 68987-10,1:10000,,A/C
Column ID: 0.25 mm	Data File: M35904.D
GC Column #2: STX-CLPesticides II	Dilution Factor: 83775.6
Column ID: 0.25 mm	

Column #1		Column #2	
COMPOUND	SAMPLE RESULT (ug/kg)	SAMPLE RESULT (ug/kg)	RPD #
PCB 1254	58485932	59888168	2.4

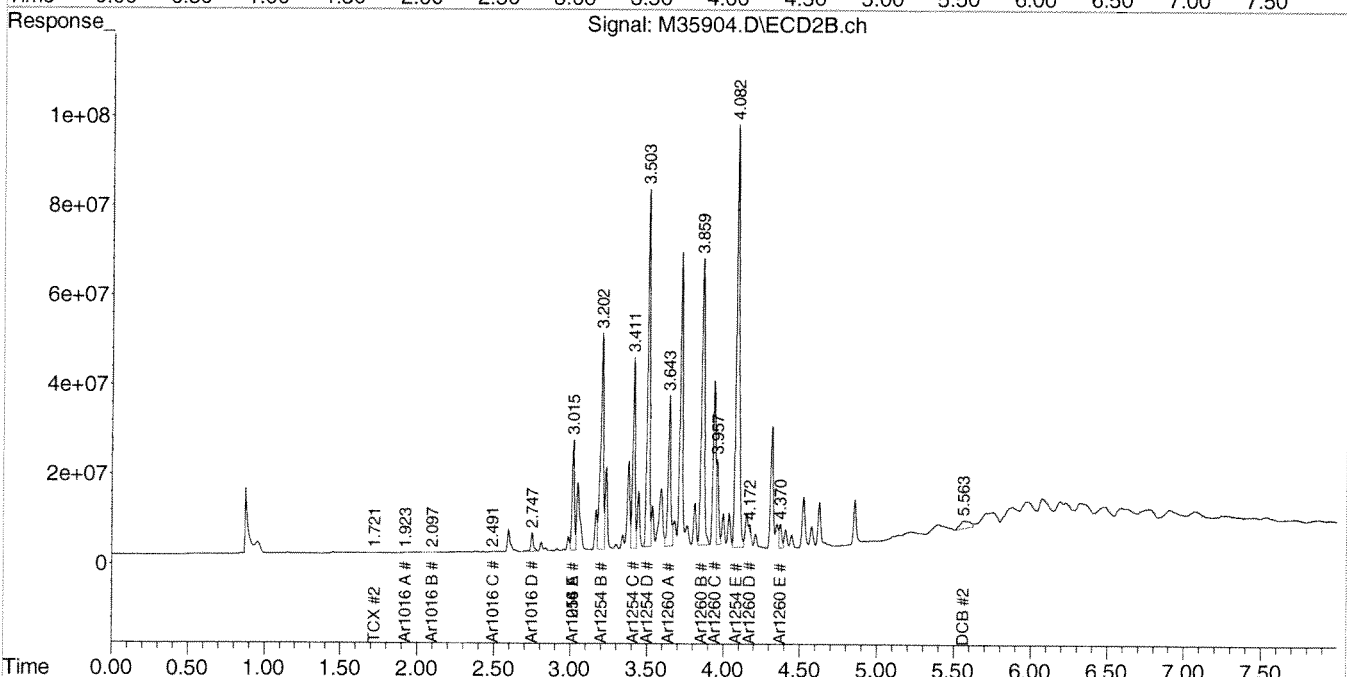
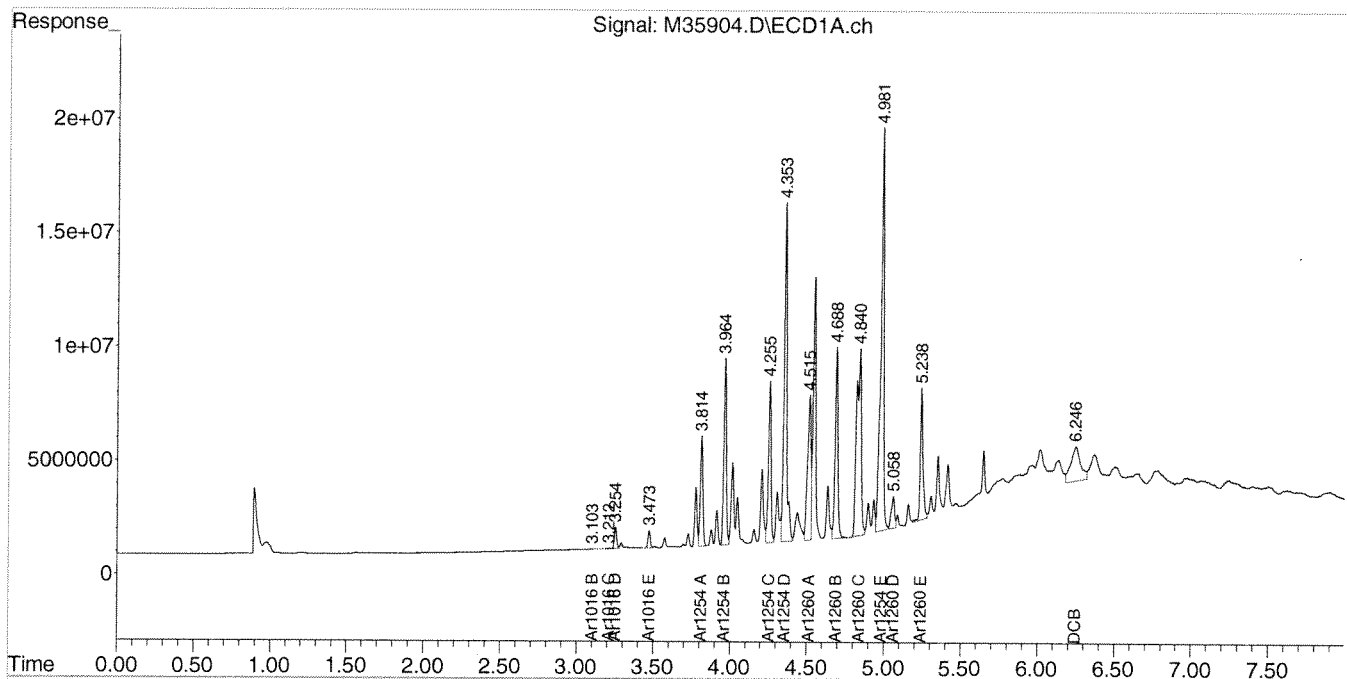
# Column to be used to flag RPD values greater than QC limit of 40%  
\* Values outside QC limits

Comments: \_\_\_\_\_

Data Path : C:\msdchem\1\DATA\021011-M\  
Data File : M35904.D  
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch  
Acq On : 10 Feb 2011 1:32 pm  
Operator : JK  
Sample : 68987-10,1:10000,,A/C  
Misc : SOIL  
ALS Vial : 17 Sample Multiplier: 1

Integration File signal 1: events.e  
Integration File signal 2: events2.e  
Quant Time: Feb 10 15:19:10 2011  
Quant Method : C:\msdchem\1\METHODS\PCB020711.M  
Quant Title : SW-846 METHOD 8082 Aroclor 1016/1260/1254  
QLast Update : Mon Feb 07 15:22:15 2011  
Response via : Initial Calibration  
Integrator: ChemStation

Volume Inj. : 2 uL  
Signal #1 Phase : STX-CLPPesticides Signal #2 Phase: STX-CLPPesticides  
Signal #1 Info : 30 m x 0.25mm x 0 Signal #2 Info : 30 m x 0.25mm x 0.25 um



Ms. Amy Wallace  
Woodard & Curran  
41 Hutchins Drive  
Portland ME 04102

February 11, 2011

**SAMPLE DATA**

**CLIENT SAMPLE ID**  
**Project Name:** USM Gorham  
**Project Number:** 224164  
**Field Sample ID:** UH-CBKD-013

**Lab Sample ID:** 68987-11  
**Matrix:** Solid  
**Percent Solid:** 99  
**Dilution Factor:** 96000  
**Collection Date:** 02/03/11  
**Lab Receipt Date:** 02/04/11  
**Extraction Date:** 02/04/11  
**Analysis Date:** 02/10/11

**PCB ANALYTICAL RESULTS**

COMPOUND	Quantitation Limit $\mu\text{g/kg}$	Results $\mu\text{g/kg}$
PCB-1016	3168000	U
PCB-1221	3168000	U
PCB-1232	3168000	U
PCB-1242	3168000	U
PCB-1248	3168000	U
PCB-1254	3168000	<b>61400000</b>
PCB-1260	3168000	U

**Surrogate Standard Recovery**

2,4,5,6-Tetrachloro-m-xylene \* %  
Decachlorobiphenyl \* %

U=Undetected J=Estimated E=Exceeds Calibration Range B=Detected in

METHODOLOGY: Sample analysis conducted according to Test Methods for Evaluating Solid Waste, SW-846 Method 8082.

Sample preparation conducted according to Test Methods for Evaluating Solid Waste, SW-846 Method 3540C.

COMMENTS: Results are expressed on a dry weight basis.  
\* The surrogates were diluted out.

PCB  
COLUMN RELATIVE PERCENT DIFFERENCE

Instrument ID: M	SDG: 68987
GC Column #1: STX-CLPesticides I	Sample: 68987-11,1:10000,,A/C
Column ID: 0.25 mm	Data File: M35905.D
GC Column #2: STX-CLPesticides II	Dilution Factor: 96035.2
Column ID: 0.25 mm	

Column #1		Column #2		
COMPOUND	SAMPLE RESULT (ug/kg)	SAMPLE RESULT (ug/kg)	RPD	#
PCB 1254	58796132	61398676	4.3	

# Column to be used to flag RPD values greater than QC limit of 40%

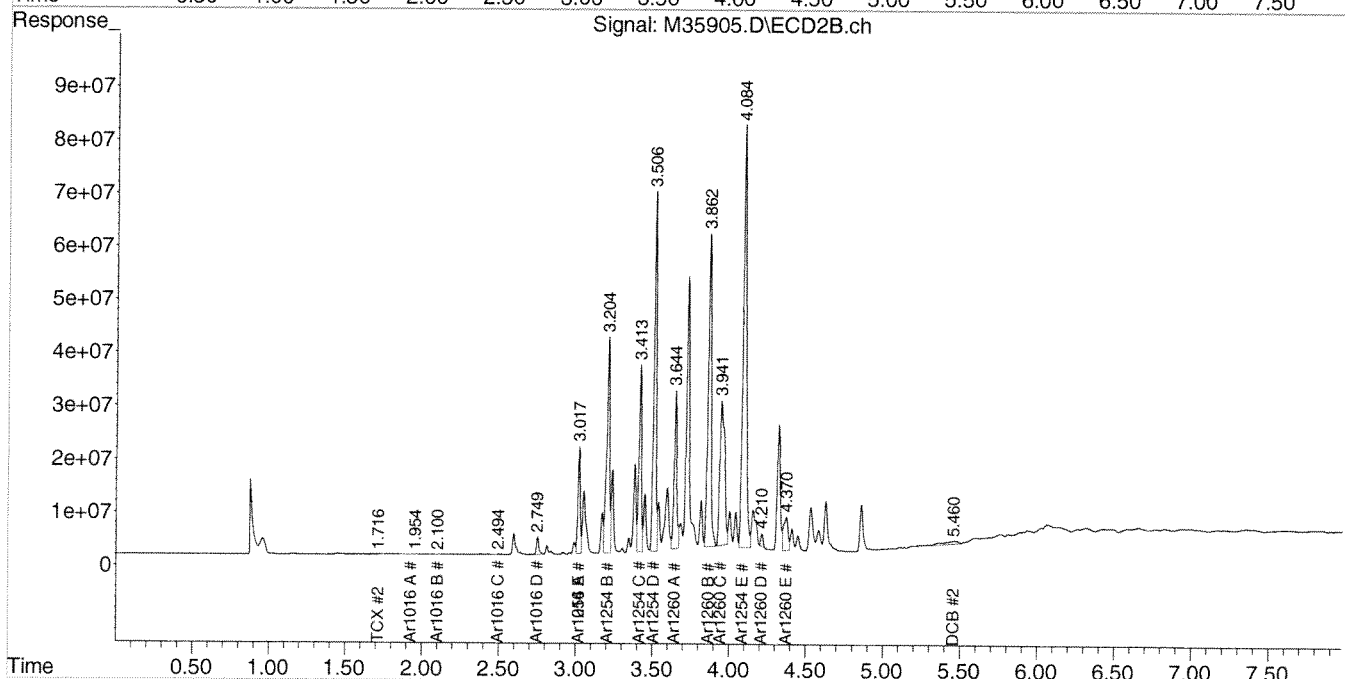
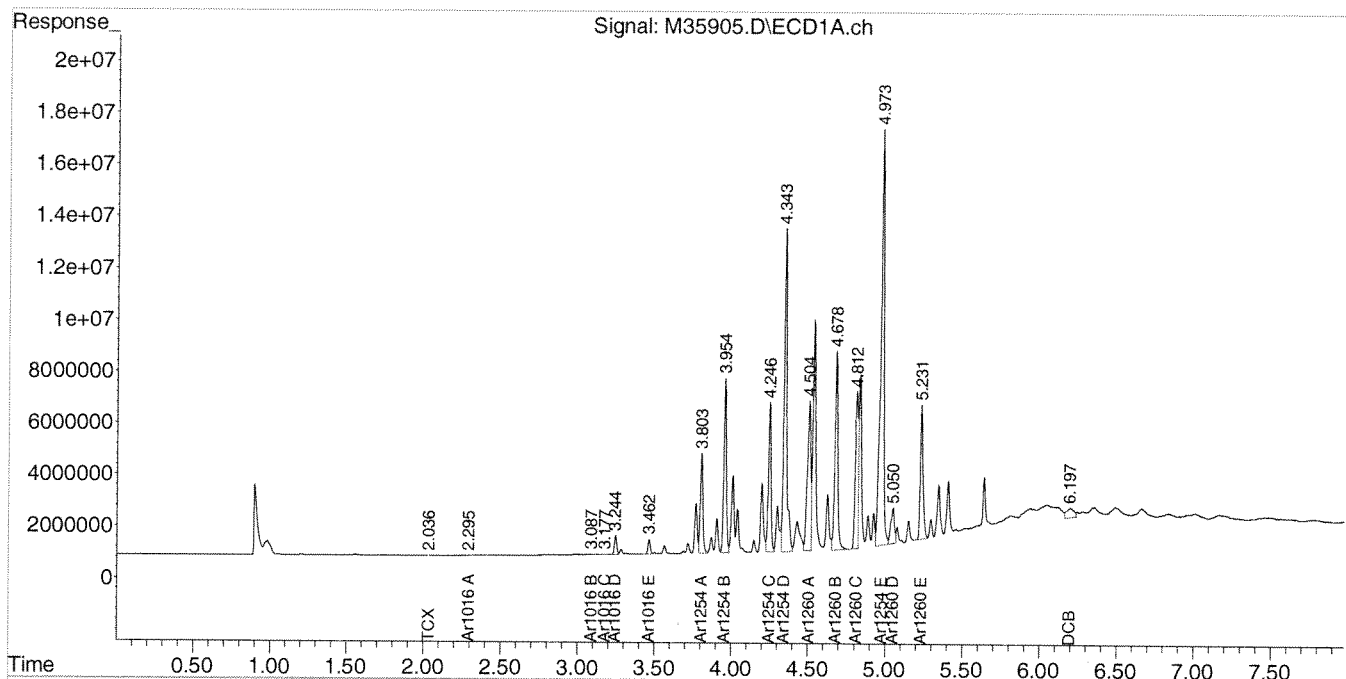
\* Values outside QC limits

Comments: \_\_\_\_\_

Data Path : C:\msdchem\1\DATA\021011-M\  
Data File : M35905.D  
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch  
Acq On : 10 Feb 2011 1:42 pm  
Operator : JK  
Sample : 68987-11,1:10000,,A/C  
Misc : SOIL  
ALS Vial : 18 Sample Multiplier: 1

Integration File signal 1: events.e  
Integration File signal 2: events2.e  
Quant Time: Feb 10 15:20:23 2011  
Quant Method : C:\msdchem\1\METHODS\PCB020711.M  
Quant Title : SW-846 METHOD 8082 Aroclor 1016/1260/1254  
QLast Update : Mon Feb 07 15:22:15 2011  
Response via : Initial Calibration  
Integrator: ChemStation

Volume Inj. : 2 uL  
Signal #1 Phase : STX-CLPPesticides Signal #2 Phase: STX-CLPPesticides  
Signal #1 Info : 30 m x 0.25mm x 0 Signal #2 Info : 30 m x 0.25mm x 0.25 um



Ms. Amy Wallace  
Woodard & Curran  
41 Hutchins Drive  
Portland ME 04102

February 11, 2011

**SAMPLE DATA**

**CLIENT SAMPLE ID**

**Project Name:** USM Gorham  
**Project Number:** 224164  
**Field Sample ID:** UH-CBB-014

**Lab Sample ID:** 68987-12  
**Matrix:** Solid  
**Percent Solid:** 100  
**Dilution Factor:** 20  
**Collection Date:** 02/03/11  
**Lab Receipt Date:** 02/04/11  
**Extraction Date:** 02/04/11  
**Analysis Date:** 02/10/11

**PCB ANALYTICAL RESULTS**

COMPOUND	Quantitation Limit $\mu\text{g/kg}$	Results $\mu\text{g/kg}$
PCB-1016	660	U
PCB-1221	660	U
PCB-1232	660	U
PCB-1242	660	U
PCB-1248	660	U
PCB-1254	660	<b>8300</b>
PCB-1260	660	U
<b><u>Surrogate Standard Recovery</u></b>		
2,4,5,6-Tetrachloro-m-xylene	*	%
Decachlorobiphenyl	*	%
U=Undetected J=Estimated E=Exceeds Calibration Range B=Detected in		

METHODOLOGY: Sample analysis conducted according to Test Methods for Evaluating Solid Waste, SW-846 Method 8082.

Sample preparation conducted according to Test Methods for Evaluating Solid Waste, SW-846 Method 3540C.

COMMENTS: Results are expressed on a dry weight basis.  
\* The surrogates were diluted out.

PCB  
COLUMN RELATIVE PERCENT DIFFERENCE

Instrument ID: M

SDG: 68987

GC Column #1: STX-CLPesticides I

Sample: 68987-12,1:20,,A/C

Column ID: 0.25 mm

Data File: M35910.D

GC Column #2: STX-CLPesticides II

Dilution Factor: 19.6

Column ID: 0.25 mm

COMPOUND	Column #1	Column #2		
	SAMPLE RESULT (ug/kg)	SAMPLE RESULT (ug/kg)	RPD	#
PCB 1254	7770	8303	6.6	

# Column to be used to flag RPD values greater than QC limit of 40%

\* Values outside QC limits

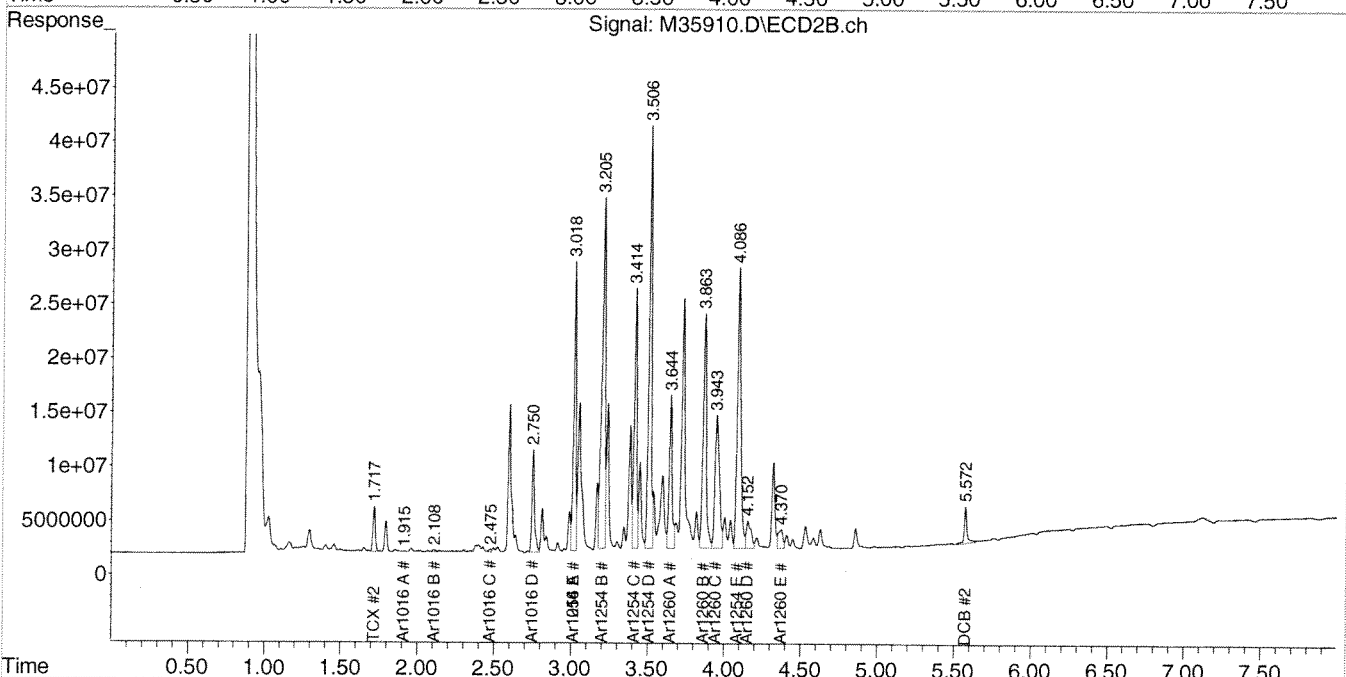
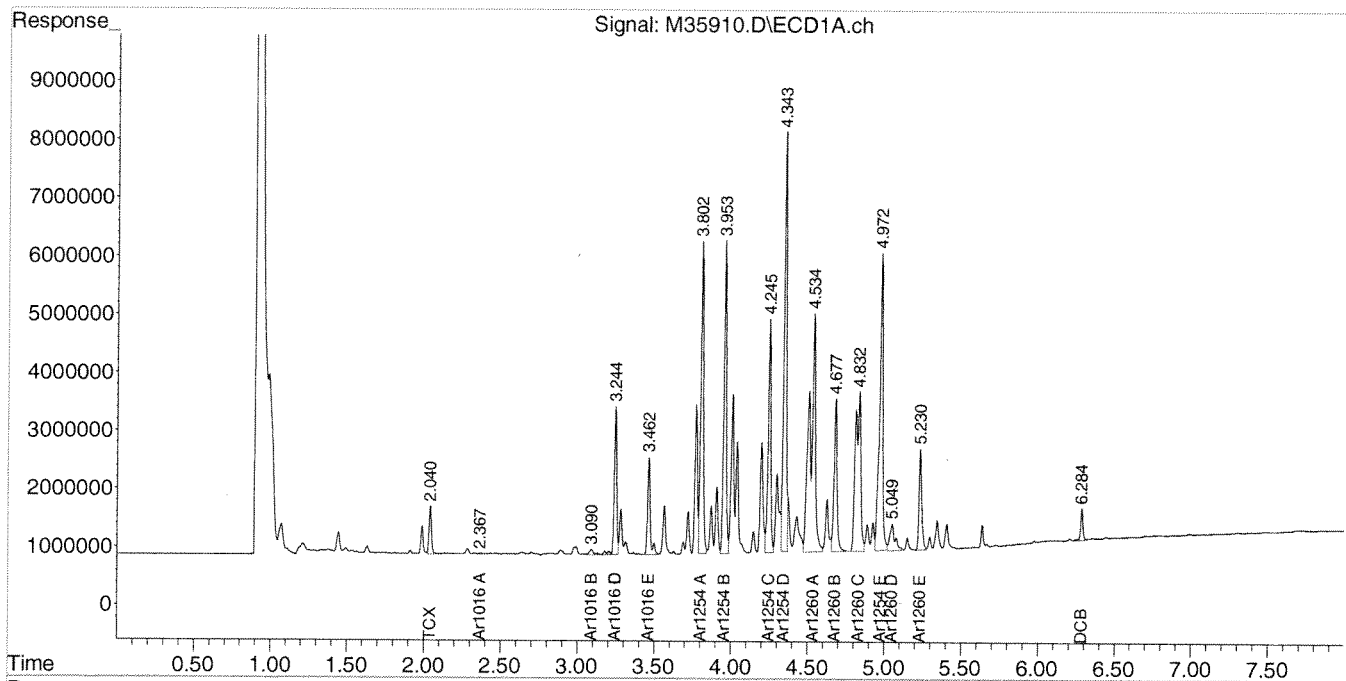
Comments: \_\_\_\_\_



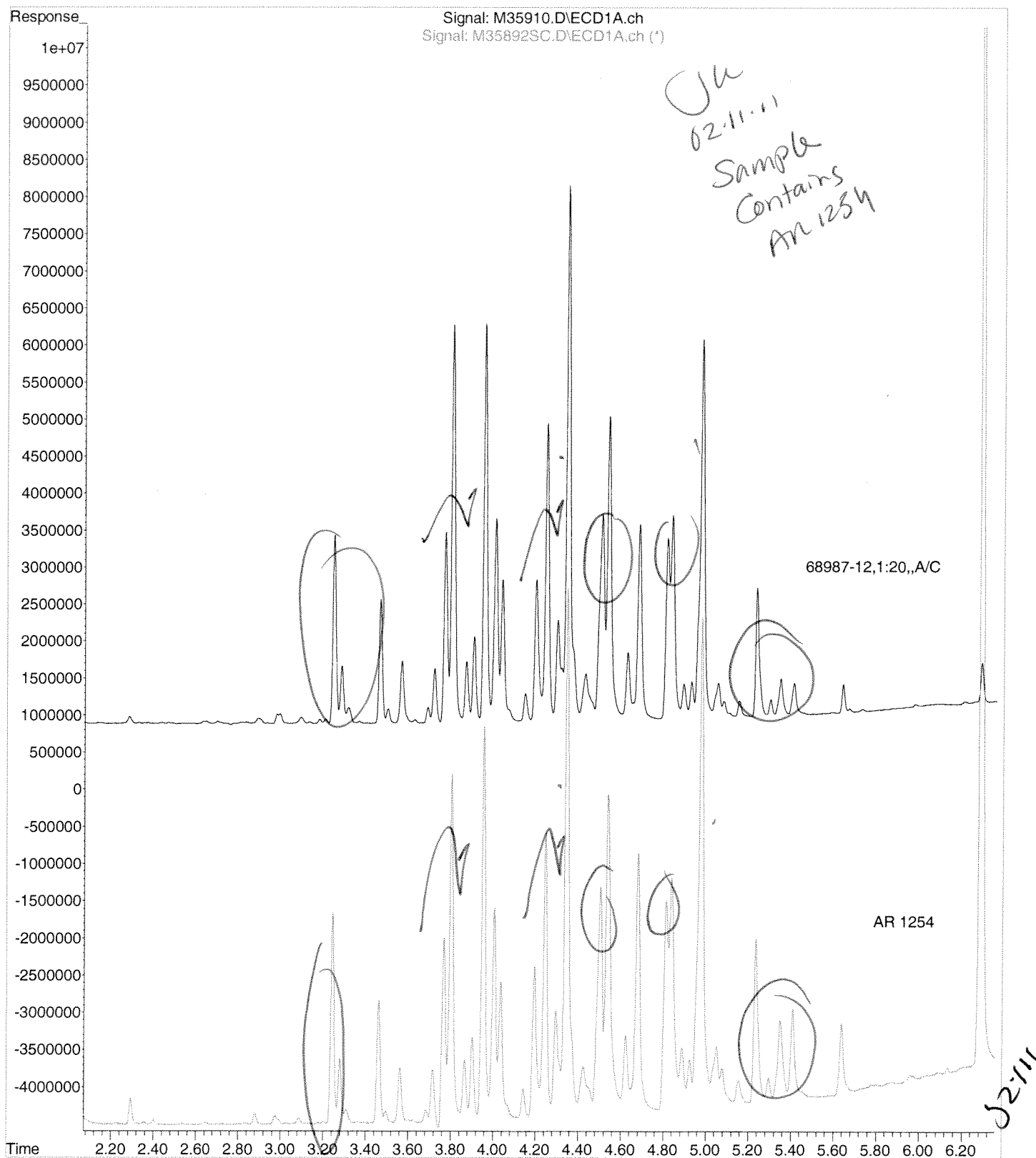
Data Path : C:\msdchem\1\DATA\021011-M\  
Data File : M35910.D  
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch  
Acq On : 10 Feb 2011 3:04 pm  
Operator : JK  
Sample : 68987-12,1:20,,A/C  
Misc : SOIL  
ALS Vial : 7 Sample Multiplier: 1

Integration File signal 1: events.e  
Integration File signal 2: events2.e  
Quant Time: Feb 11 08:12:10 2011  
Quant Method : C:\msdchem\1\METHODS\PCB020711.M  
Quant Title : SW-846 METHOD 8082 Aroclor 1016/1260/1254  
QLast Update : Mon Feb 07 15:22:15 2011  
Response via : Initial Calibration  
Integrator: ChemStation

Volume Inj. : 2 uL  
Signal #1 Phase : STX-CLPPesticides Signal #2 Phase: STX-CLPPesticides  
Signal #1 Info : 30 m x 0.25mm x 0 Signal #2 Info : 30 m x 0.25mm x 0.25 um



File :C:\msdchem\1\DATA\021011-M\M35910.D  
Operator : JK  
Acquired : 10 Feb 2011 3:04 pm using AcqMethod PEST.M  
Instrument : Instrument M  
Sample Name: 68987-12,1:20,,A/C  
Misc Info : SOIL  
Vial Number: 7



Ms. Amy Wallace  
Woodard & Curran  
41 Hutchins Drive  
Portland ME 04102

February 11, 2011

**SAMPLE DATA**

**CLIENT SAMPLE ID**

**Project Name:** USM Gorham  
**Project Number:** 224164  
**Field Sample ID:** UH-CBB-015

**Lab Sample ID:** 68987-13  
**Matrix:** Solid  
**Percent Solid:** 100  
**Dilution Factor:** 1.5  
**Collection Date:** 02/03/11  
**Lab Receipt Date:** 02/04/11  
**Extraction Date:** 02/04/11  
**Analysis Date:** 02/10/11

**PCB ANALYTICAL RESULTS**

COMPOUND	Quantitation Limit $\mu\text{g/kg}$	Results $\mu\text{g/kg}$
PCB-1016	50	U
PCB-1221	50	U
PCB-1232	50	U
PCB-1242	50	U
PCB-1248	50	U
PCB-1254	50	<b>180</b>
PCB-1260	50	U
<b><u>Surrogate Standard Recovery</u></b>		
2,4,5,6-Tetrachloro-m-xylene	87	%
Decachlorobiphenyl	54	%
U=Undetected J=Estimated E=Exceeds Calibration Range B=Detected in		

METHODOLOGY: Sample analysis conducted according to Test Methods for Evaluating Solid Waste, SW-846 Method 8082.

Sample preparation conducted according to Test Methods for Evaluating Solid Waste, SW-846 Method 3540C.

COMMENTS: Results are expressed on a dry weight basis.

PCB  
COLUMN RELATIVE PERCENT DIFFERENCE

Instrument ID: M	SDG: 68987
GC Column #1: STX-CLPesticides I	Sample: 68987-13,,A/C
Column ID: 0.25 mm	Data File: M35911.D
GC Column #2: STX-CLPesticides II	Dilution Factor: 1.5
Column ID: 0.25 mm	

COMPOUND	Column #1	Column #2	RPD		#
	SAMPLE RESULT (ug/kg)	SAMPLE RESULT (ug/kg)			
PCB 1254	180	164	9.1		

# Column to be used to flag RPD values greater than QC limit of 40%

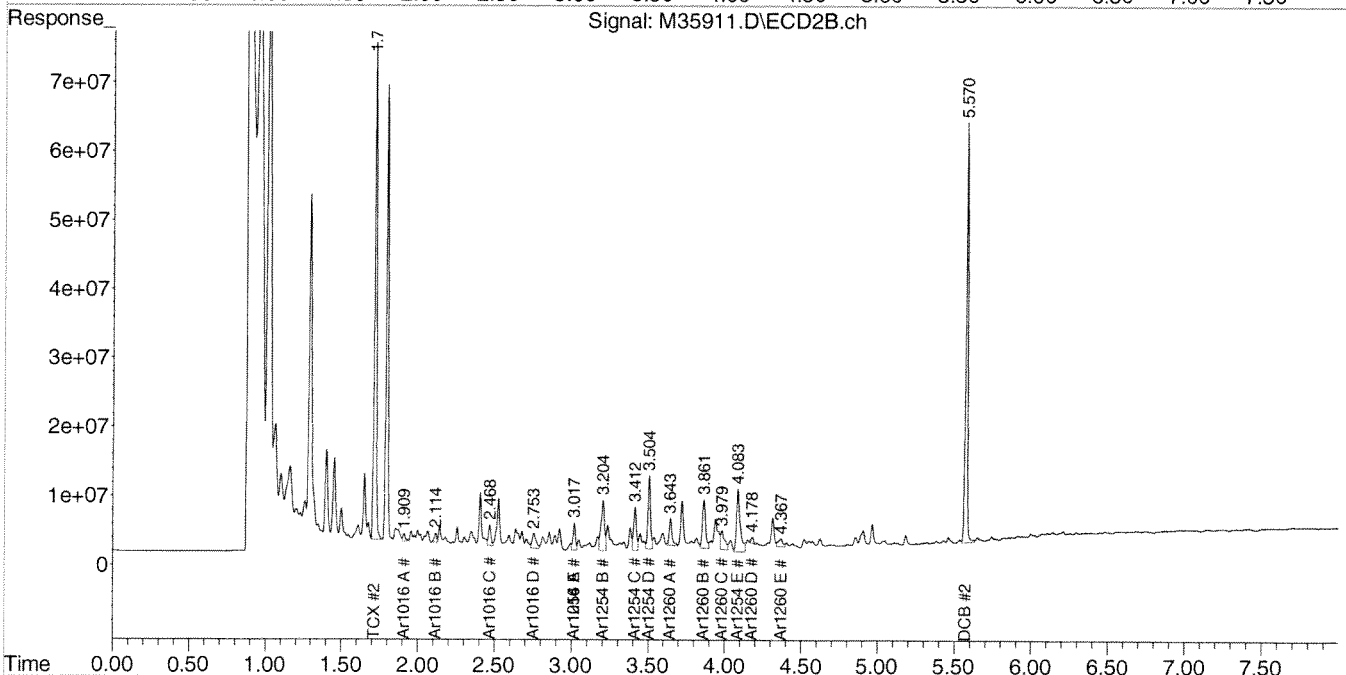
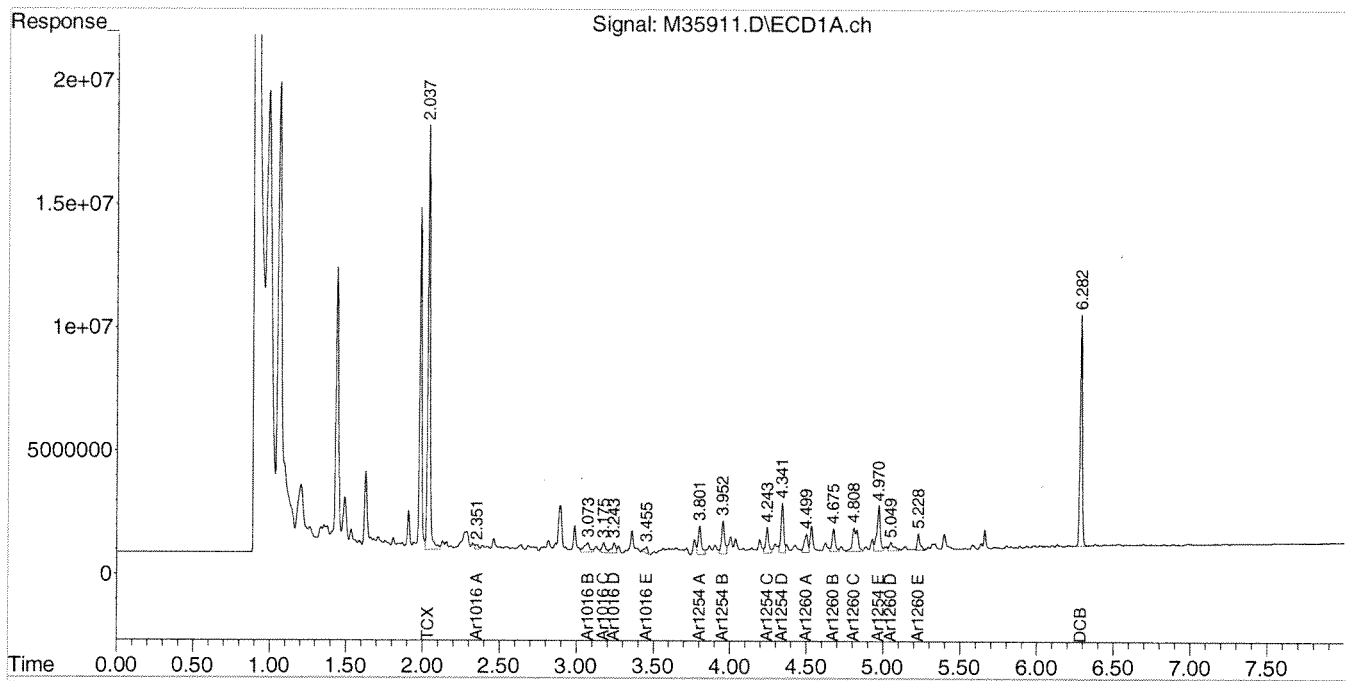
\* Values outside QC limits

Comments: \_\_\_\_\_

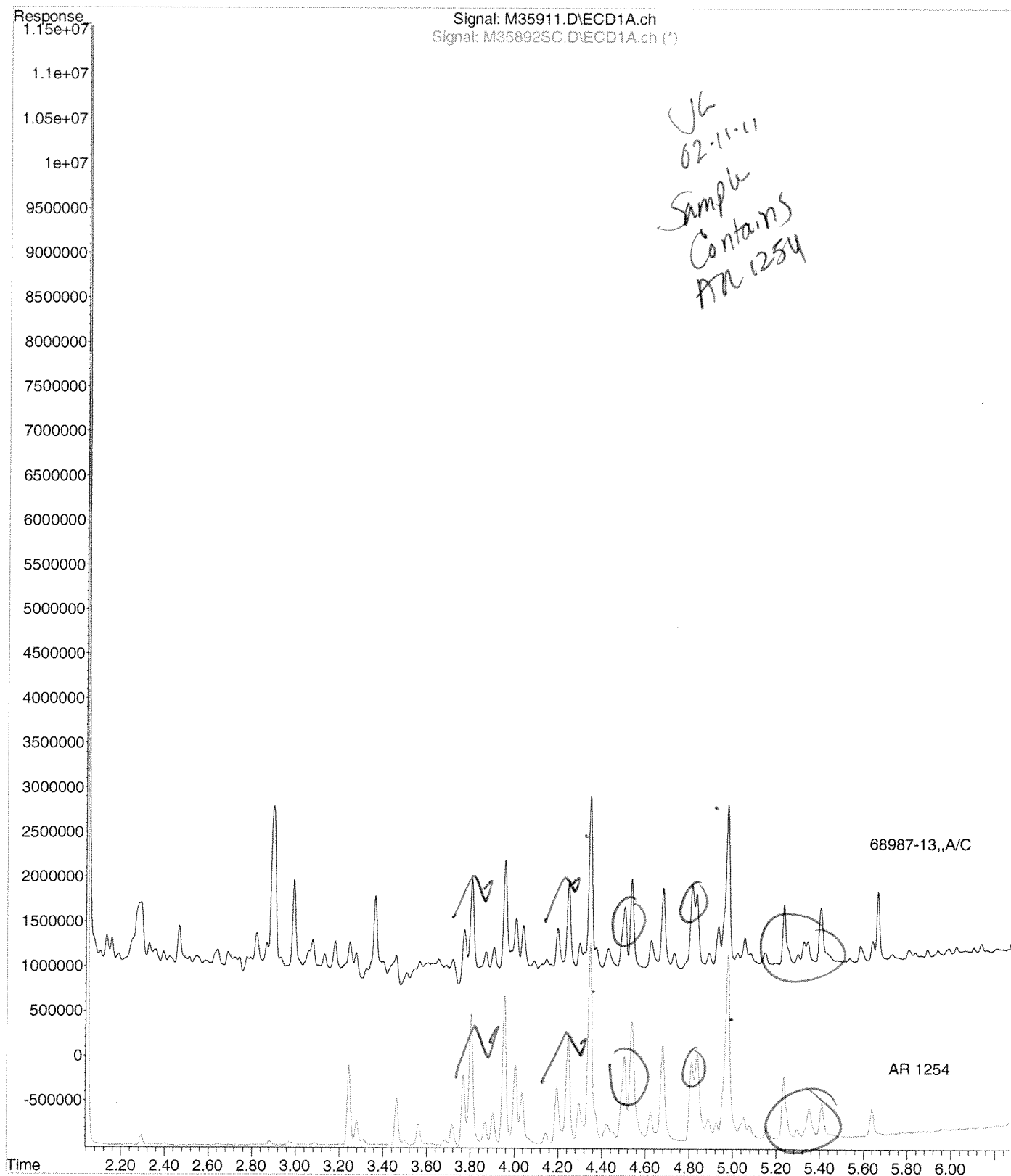
Data Path : C:\msdchem\1\DATA\021011-M\  
Data File : M35911.D  
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch  
Acq On : 10 Feb 2011 3:14 pm  
Operator : JK  
Sample : 68987-13,,A/C  
Misc : SOIL  
ALS Vial : 8 Sample Multiplier: 1

Integration File signal 1: events.e  
Integration File signal 2: events2.e  
Quant Time: Feb 11 08:14:49 2011  
Quant Method : C:\msdchem\1\METHODS\PCB020711.M  
Quant Title : SW-846 METHOD 8082 Aroclor 1016/1260/1254  
QLast Update : Mon Feb 07 15:22:15 2011  
Response via : Initial Calibration  
Integrator: ChemStation

Volume Inj. : 2 uL  
Signal #1 Phase : STX-CLPPesticides Signal #2 Phase: STX-CLPPesticides  
Signal #1 Info : 30 m x 0.25mm x 0 Signal #2 Info : 30 m x 0.25mm x 0.25 um



File :C:\msdchem\1\DATA\021011-M\M35911.D  
Operator : JK  
Acquired : 10 Feb 2011 3:14 pm using AcqMethod PEST.M  
Instrument : Instrument M  
Sample Name: 68987-13,,A/C  
Misc Info : SOIL  
Vial Number: 8



Ms. Amy Wallace  
Woodard & Curran  
41 Hutchins Drive  
Portland ME 04102

February 11, 2011

**SAMPLE DATA**

**CLIENT SAMPLE ID**

**Project Name:** USM Gorham  
**Project Number:** 224164  
**Field Sample ID:** UH-CBC-016

**Lab Sample ID:** 68987-14  
**Matrix:** Solid  
**Percent Solid:** 98  
**Dilution Factor:** 2.0  
**Collection Date:** 02/03/11  
**Lab Receipt Date:** 02/04/11  
**Extraction Date:** 02/04/11  
**Analysis Date:** 02/10/11

**PCB ANALYTICAL RESULTS**

COMPOUND	Quantitation Limit $\mu\text{g/kg}$	Results $\mu\text{g/kg}$
PCB-1016	66	U
PCB-1221	66	U
PCB-1232	66	U
PCB-1242	66	U
PCB-1248	66	U
PCB-1254	66	<b>1090</b>
PCB-1260	66	U
<b><u>Surrogate Standard Recovery</u></b>		
2,4,5,6-Tetrachloro-m-xylene	111	%
Decachlorobiphenyl	64	%
U=Undetected J=Estimated E=Exceeds Calibration Range B=Detected in		

METHODOLOGY: Sample analysis conducted according to Test Methods for Evaluating Solid Waste, SW-846 Method 8082.

Sample preparation conducted according to Test Methods for Evaluating Solid Waste, SW-846 Method 3540C.

COMMENTS: Results are expressed on a dry weight basis.



PCB  
COLUMN RELATIVE PERCENT DIFFERENCE

Instrument ID: M	SDG: 68987
GC Column #1: STX-CLPesticides I	Sample: 68987-14,1:2,,A/C
Column ID: 0.25 mm	Data File: M35912.D
GC Column #2: STX-CLPesticides II	Dilution Factor: 2.0
Column ID: 0.25 mm	

Column #1		Column #2	
COMPOUND	SAMPLE RESULT (ug/kg)	SAMPLE RESULT (ug/kg)	RPD #
PCB 1254	1094	845	25.7

# Column to be used to flag RPD values greater than QC limit of 40%

\* Values outside QC limits

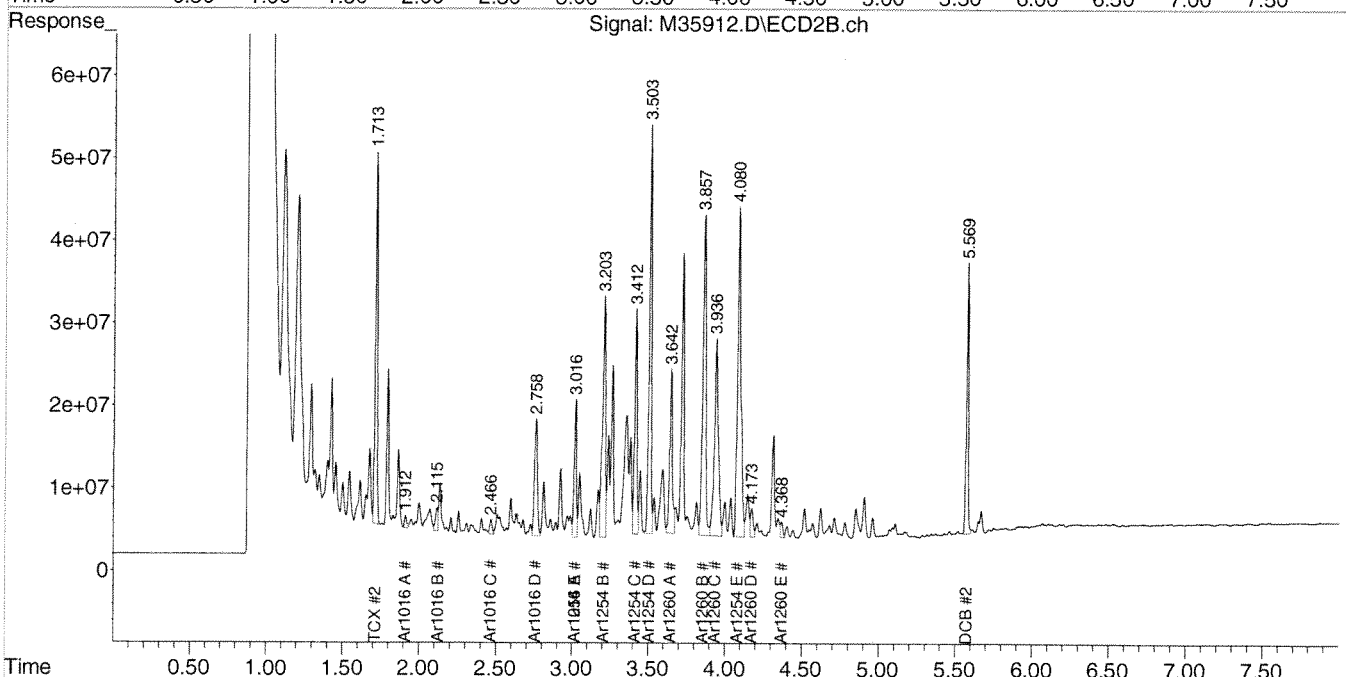
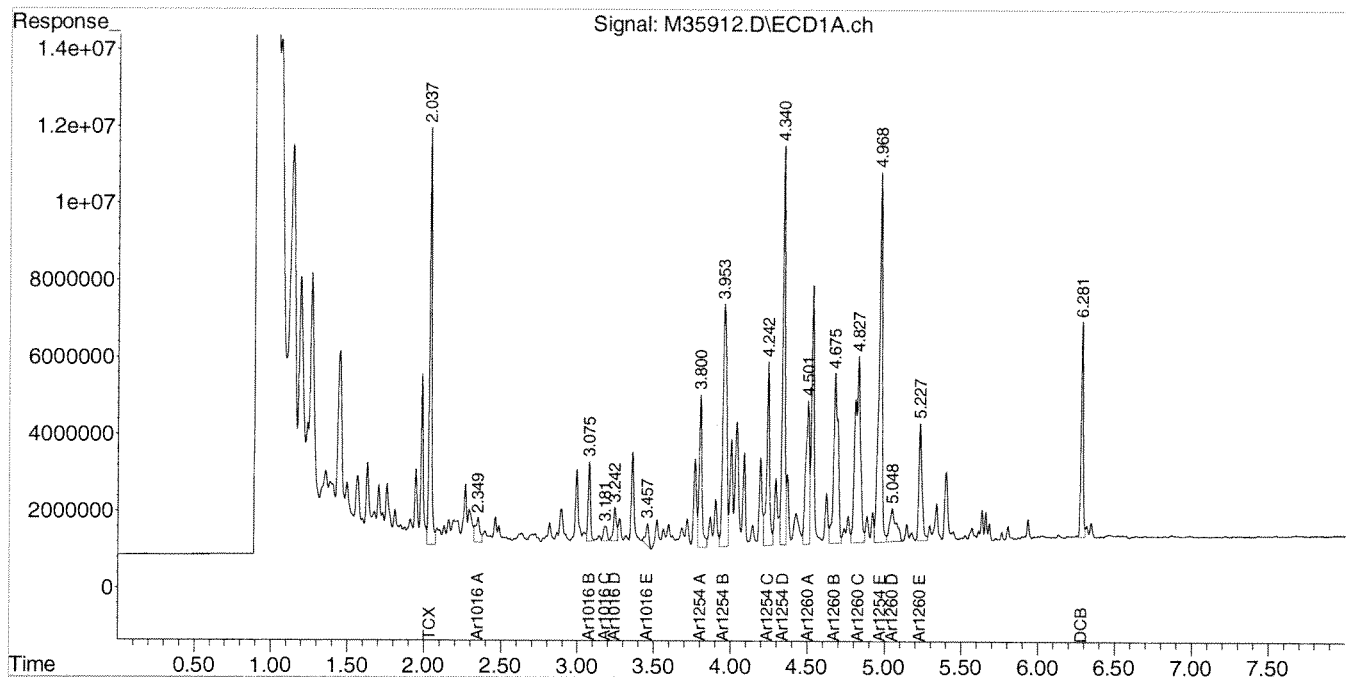
Comments: \_\_\_\_\_



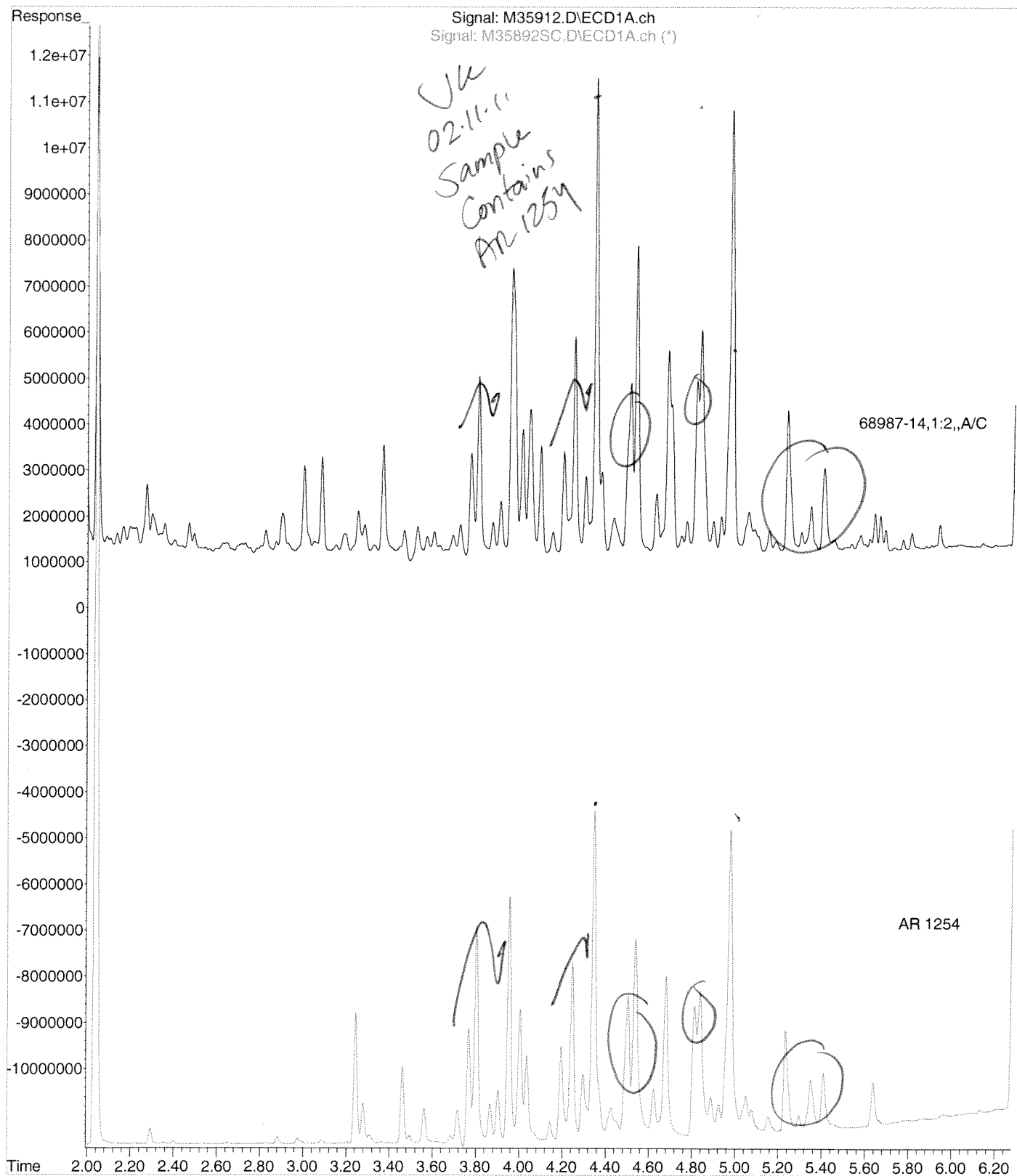
Data Path : C:\msdchem\1\DATA\021011-M\  
Data File : M35912.D  
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch  
Acq On : 10 Feb 2011 3:24 pm  
Operator : JK  
Sample : 68987-14,1:2,,A/C  
Misc : SOIL  
ALS Vial : 9 Sample Multiplier: 1

Integration File signal 1: events.e  
Integration File signal 2: events2.e  
Quant Time: Feb 11 08:17:45 2011  
Quant Method : C:\msdchem\1\METHODS\PCB020711.M  
Quant Title : SW-846 METHOD 8082 Aroclor 1016/1260/1254  
QLast Update : Mon Feb 07 15:22:15 2011  
Response via : Initial Calibration  
Integrator: ChemStation

Volume Inj. : 2 uL  
Signal #1 Phase : STX-CLPPesticides Signal #2 Phase: STX-CLPPesticides  
Signal #1 Info : 30 m x 0.25mm x 0 Signal #2 Info : 30 m x 0.25mm x 0.25 um



File : C:\msdchem\1\DATA\021011-M\M35912.D  
Operator : JK  
Acquired : 10 Feb 2011 3:24 pm using AcqMethod PEST.M  
Instrument : Instrument M  
Sample Name: 68987-14,1:2,,A/C  
Misc Info : SOIL  
Vial Number: 9



Ms. Amy Wallace  
Woodard & Curran  
41 Hutchins Drive  
Portland ME 04102

February 11, 2011

**SAMPLE DATA**

**CLIENT SAMPLE ID**

**Project Name:** USM Gorham  
**Project Number:** 224164  
**Field Sample ID:** UH-CBK-017

**Lab Sample ID:** 68987-15  
**Matrix:** Solid  
**Percent Solid:** 99  
**Dilution Factor:** 19  
**Collection Date:** 02/03/11  
**Lab Receipt Date:** 02/04/11  
**Extraction Date:** 02/04/11  
**Analysis Date:** 02/10/11

**PCB ANALYTICAL RESULTS**

COMPOUND	Quantitation Limit $\mu\text{g/kg}$	Results $\mu\text{g/kg}$
PCB-1016	630	U
PCB-1221	630	U
PCB-1232	630	U
PCB-1242	630	U
PCB-1248	630	U
PCB-1254	630	<b>14900</b>
PCB-1260	630	U
<b><u>Surrogate Standard Recovery</u></b>		
2,4,5,6-Tetrachloro-m-xylene	96	%
Decachlorobiphenyl	56	%
U=Undetected J=Estimated E=Exceeds Calibration Range B=Detected in		

METHODOLOGY: Sample analysis conducted according to Test Methods for Evaluating Solid Waste, SW-846 Method 8082.

Sample preparation conducted according to Test Methods for Evaluating Solid Waste, SW-846 Method 3540C.

COMMENTS: Results are expressed on a dry weight basis.

PCB  
COLUMN RELATIVE PERCENT DIFFERENCE

Instrument ID: M	SDG: 68987
GC Column #1: STX-CLPesticides I	Sample: 68987-15,1:2,,A/C
Column ID: 0.25 mm	Data File: M35913.D
GC Column #2: STX-CLPesticides II	Dilution Factor: 18.7
Column ID: 0.25 mm	

Column #1		Column #2	
COMPOUND	SAMPLE RESULT (ug/kg)	SAMPLE RESULT (ug/kg)	RPD #
PCB 1254	14126	14943	5.6

# Column to be used to flag RPD values greater than QC limit of 40%

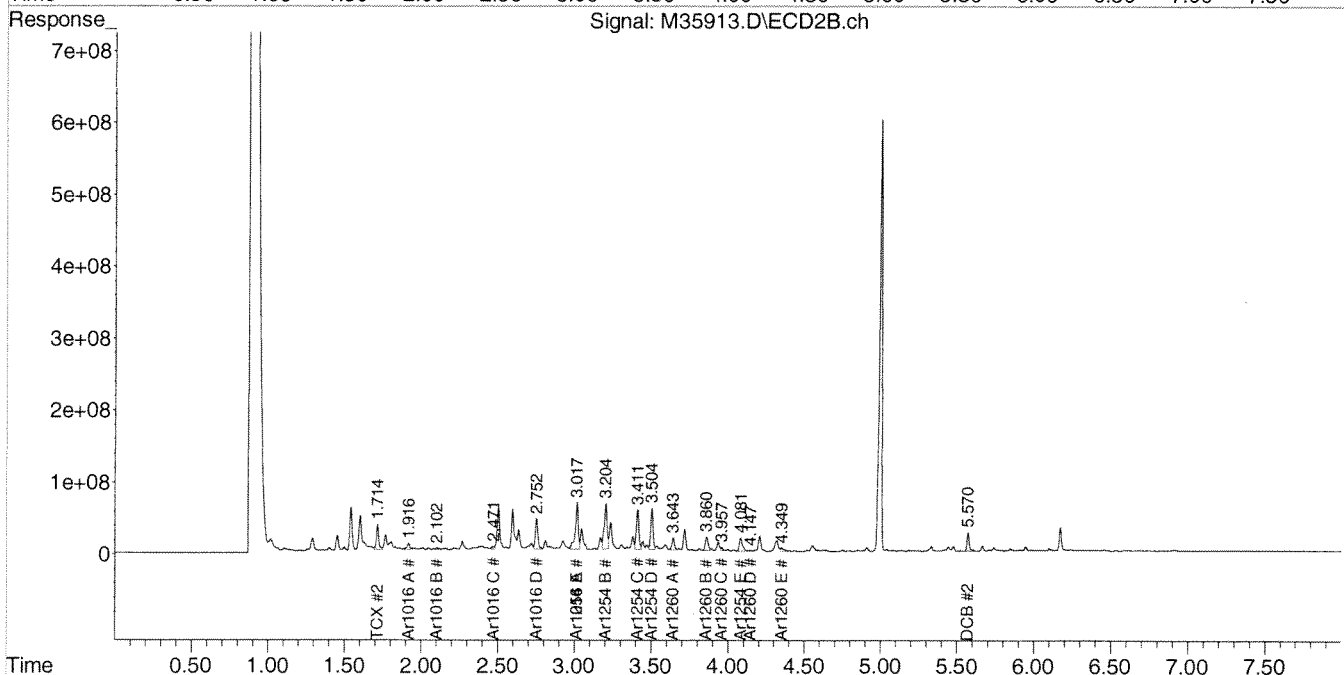
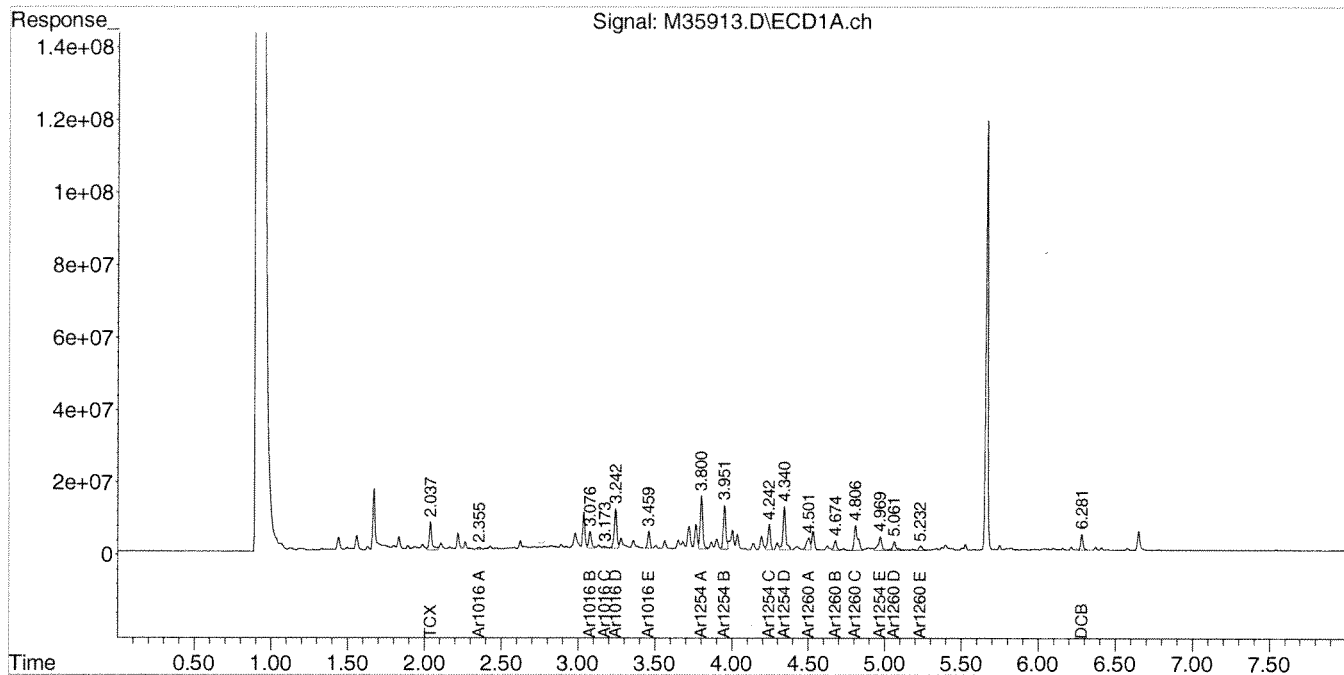
\* Values outside QC limits

Comments: \_\_\_\_\_

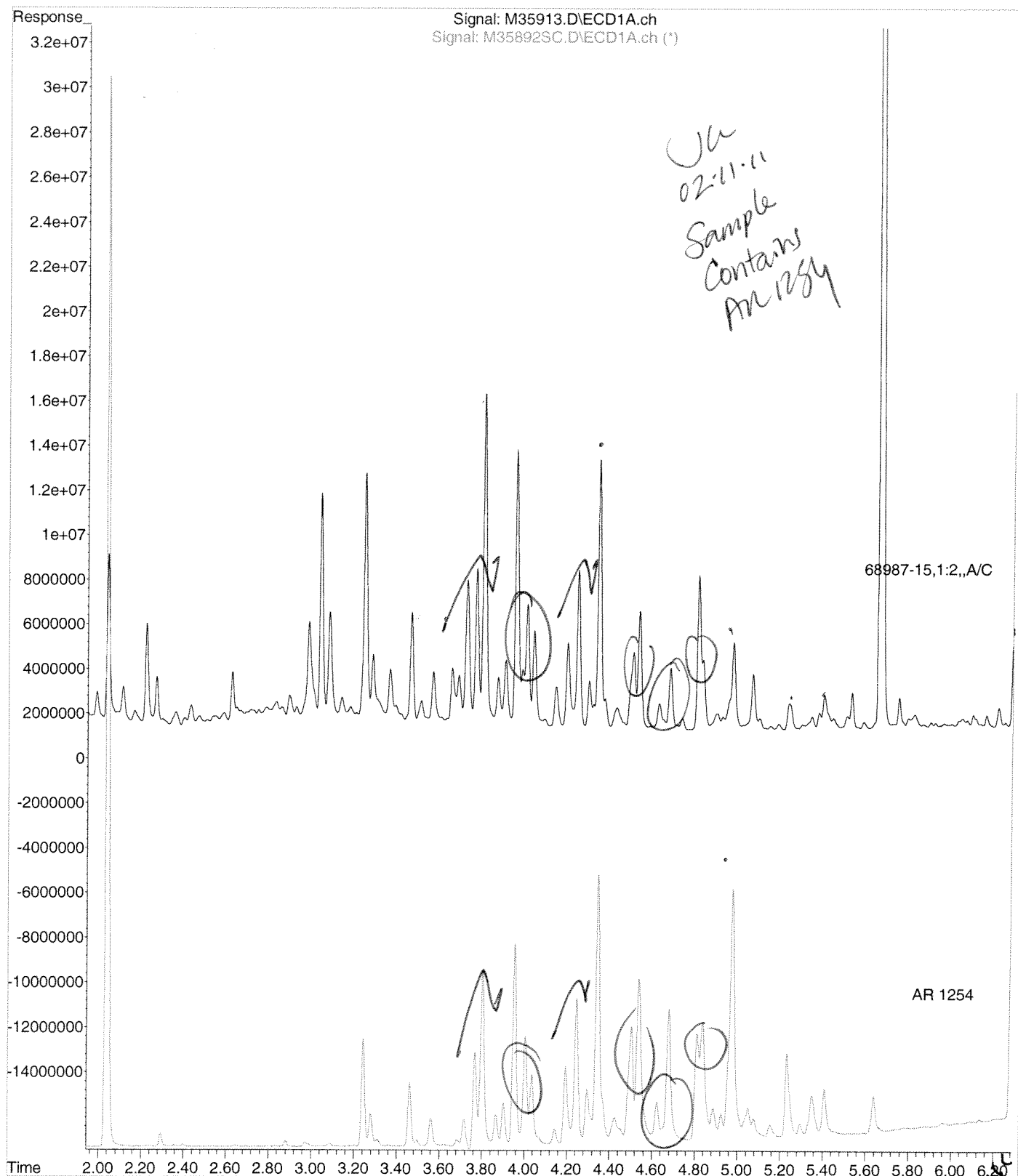
Data Path : C:\msdchem\1\DATA\021011-M\  
Data File : M35913.D  
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch  
Acq On : 10 Feb 2011 3:34 pm  
Operator : JK  
Sample : 68987-15,1:2,,A/C  
Misc : SOIL  
ALS Vial : 10 Sample Multiplier: 1

Integration File signal 1: events.e  
Integration File signal 2: events2.e  
Quant Time: Feb 10 22:52:04 2011  
Quant Method : C:\msdchem\1\METHODS\PCB020711.M  
Quant Title : SW-846 METHOD 8082 Aroclor 1016/1260/1254  
QLast Update : Mon Feb 07 15:22:15 2011  
Response via : Initial Calibration  
Integrator: ChemStation

Volume Inj. : 2 uL  
Signal #1 Phase : STX-CLPPesticides Signal #2 Phase: STX-CLPPesticides  
Signal #1 Info : 30 m x 0.25mm x 0 Signal #2 Info : 30 m x 0.25mm x 0.25 um



File :C:\msdchem\1\DATA\021011-M\M35913.D  
Operator : JK  
Acquired : 10 Feb 2011 3:34 pm using AcqMethod PEST.M  
Instrument : Instrument M  
Sample Name: 68987-15,1:2,,A/C  
Misc Info : SOIL  
Vial Number: 10



Ms. Amy Wallace  
Woodard & Curran  
41 Hutchins Drive  
Portland ME 04102

February 11, 2011

**SAMPLE DATA**

**CLIENT SAMPLE ID**

---

**Project Name:** USM Gorham  
**Project Number:** 224164  
**Field Sample ID:** UH-CBB-018

**Lab Sample ID:** 68987-16  
**Matrix:** Solid  
**Percent Solid:** 100  
**Dilution Factor:** 1.0  
**Collection Date:** 02/03/11  
**Lab Receipt Date:** 02/04/11  
**Extraction Date:** 02/04/11  
**Analysis Date:** 02/10/11

PCB ANALYTICAL RESULTS		
COMPOUND	Quantitation Limit µg/kg	Results µg/kg
PCB-1016	33	U
PCB-1221	33	U
PCB-1232	33	U
PCB-1242	33	U
PCB-1248	33	U
PCB-1254	33	<b>211</b>
PCB-1260	33	U
<b><u>Surrogate Standard Recovery</u></b>		
2,4,5,6-Tetrachloro-m-xylene	94	%
Decachlorobiphenyl	52	%
U=Undetected J=Estimated E=Exceeds Calibration Range B=Detected in		

METHODOLOGY: Sample analysis conducted according to Test Methods for Evaluating Solid Waste, SW-846 Method 8082.

Sample preparation conducted according to Test Methods for Evaluating Solid Waste, SW-846 Method 3540C.

COMMENTS: Results are expressed on a dry weight basis.

PCB  
COLUMN RELATIVE PERCENT DIFFERENCE

Instrument ID: M	SDG: 68987
GC Column #1: STX-CLPesticides I	Sample: 68987-16,,A/C
Column ID: 0.25 mm	Data File: M35914.D
GC Column #2: STX-CLPesticides II	Dilution Factor: 1.0
Column ID: 0.25 mm	

Column #1		Column #2	
COMPOUND	SAMPLE RESULT (ug/kg)	SAMPLE RESULT (ug/kg)	RPD #
PCB 1254	211	181	15.3

# Column to be used to flag RPD values greater than QC limit of 40%

\* Values outside QC limits

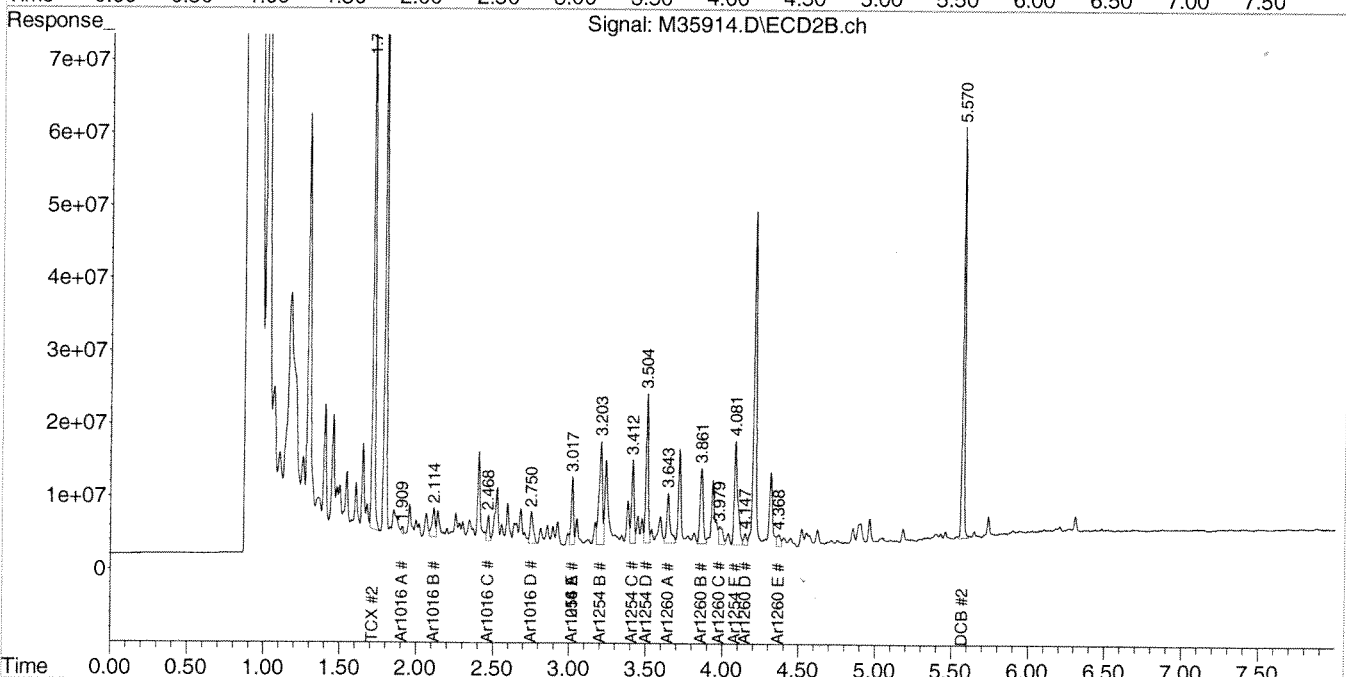
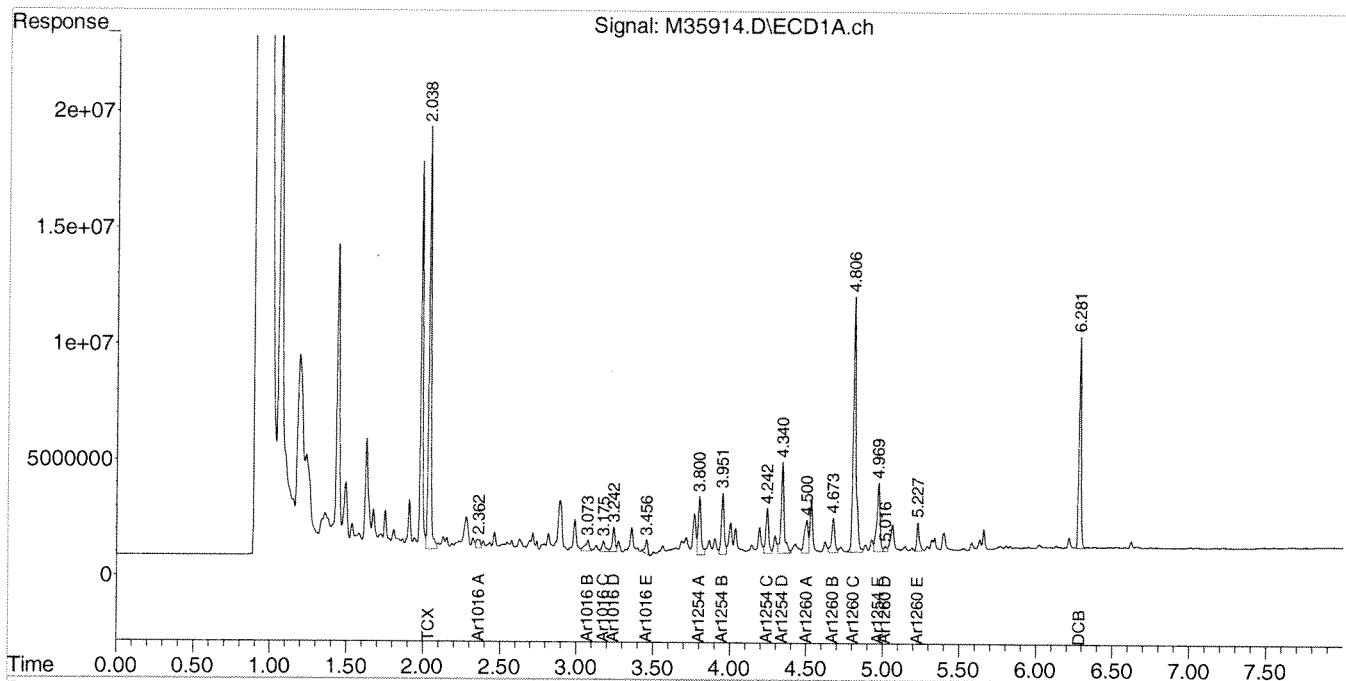
Comments: \_\_\_\_\_



Data Path : C:\msdchem\1\DATA\021011-M\  
Data File : M35914.D  
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch  
Acq On : 10 Feb 2011 3:45 pm  
Operator : JK  
Sample : 68987-16,,A/C  
Misc : SOIL  
ALS Vial : 11 Sample Multiplier: 1

Integration File signal 1: events.e  
Integration File signal 2: events2.e  
Quant Time: Feb 11 08:21:34 2011  
Quant Method : C:\msdchem\1\METHODS\PCB020711.M  
Quant Title : SW-846 METHOD 8082 Aroclor 1016/1260/1254  
QLast Update : Mon Feb 07 15:22:15 2011  
Response via : Initial Calibration  
Integrator: ChemStation

Volume Inj. : 2 uL  
Signal #1 Phase : STX-CLPPesticides Signal #2 Phase: STX-CLPPesticides  
Signal #1 Info : 30 m x 0.25mm x 0 Signal #2 Info : 30 m x 0.25mm x 0.25 um



Ms. Amy Wallace  
Woodard & Curran  
41 Hutchins Drive  
Portland ME 04102

February 11, 2011

**SAMPLE DATA**

**CLIENT SAMPLE ID**  
**Project Name:** USM Gorham  
**Project Number:** 224164  
**Field Sample ID:** UH-CBK-019

**Lab Sample ID:** 68987-17  
**Matrix:** Solid  
**Percent Solid:** 99  
**Dilution Factor:** 266000  
**Collection Date:** 02/03/11  
**Lab Receipt Date:** 02/04/11  
**Extraction Date:** 02/04/11  
**Analysis Date:** 02/10/11

**PCB ANALYTICAL RESULTS**

COMPOUND	Quantitation Limit $\mu\text{g/kg}$	Results $\mu\text{g/kg}$
PCB-1016	8778000	U
PCB-1221	8778000	U
PCB-1232	8778000	U
PCB-1242	8778000	U
PCB-1248	8778000	U
PCB-1254	8778000	<b>74300000</b>
PCB-1260	8778000	U

**Surrogate Standard Recovery**

2,4,5,6-Tetrachloro-m-xylene \* %  
Decachlorobiphenyl \* %

U=Undetected J=Estimated E=Exceeds Calibration Range B=Detected in

METHODOLOGY: Sample analysis conducted according to Test Methods for Evaluating Solid Waste, SW-846 Method 8082.

Sample preparation conducted according to Test Methods for Evaluating Solid Waste, SW-846 Method 3540C.

COMMENTS: Results are expressed on a dry weight basis.  
\* The surrogates were diluted out.

PCB  
COLUMN RELATIVE PERCENT DIFFERENCE

Instrument ID: M

SDG: 68987

GC Column #1: STX-CLPesticides I

Sample: 68987-17,1:50000,,A/C

Column ID: 0.25 mm

Data File: M35915.D

GC Column #2: STX-CLPesticides II

Dilution Factor: 265816.1

Column ID: 0.25 mm

Column #1		Column #2	
COMPOUND	SAMPLE RESULT (ug/kg)	SAMPLE RESULT (ug/kg)	RPD #
PCB 1254	71312706	74330276	4.1

# Column to be used to flag RPD values greater than QC limit of 40%

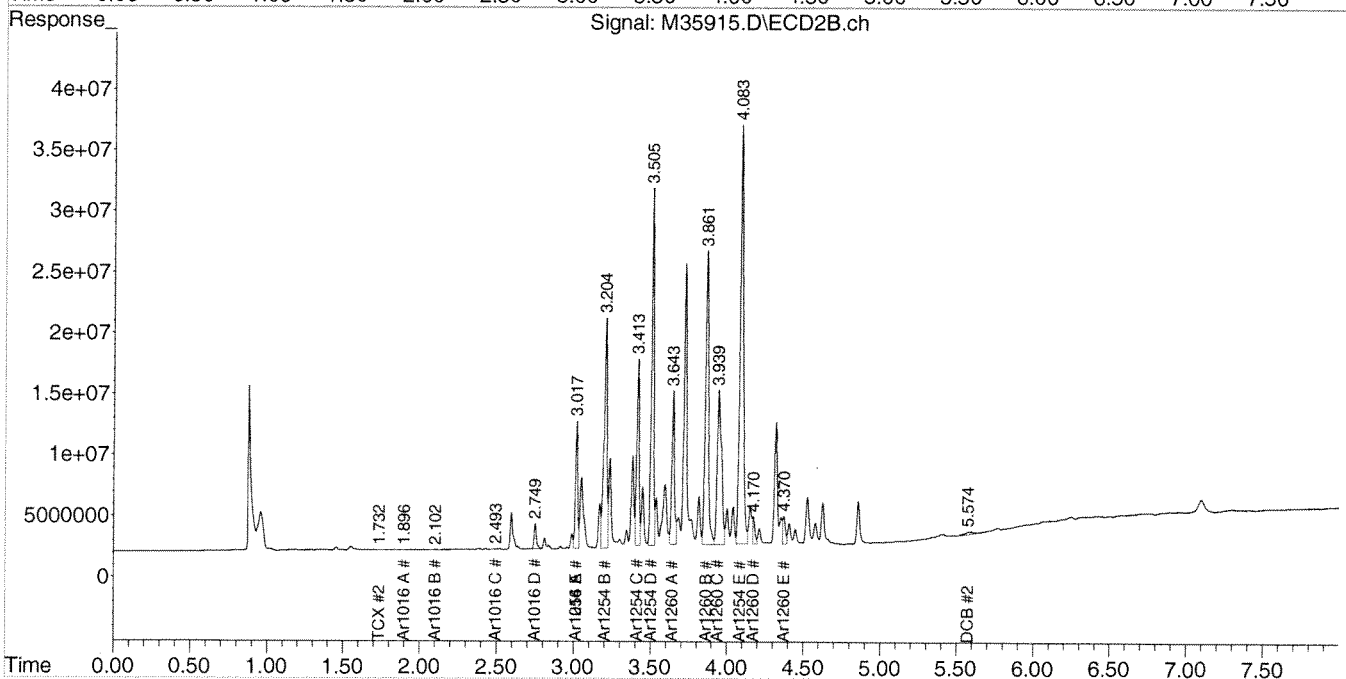
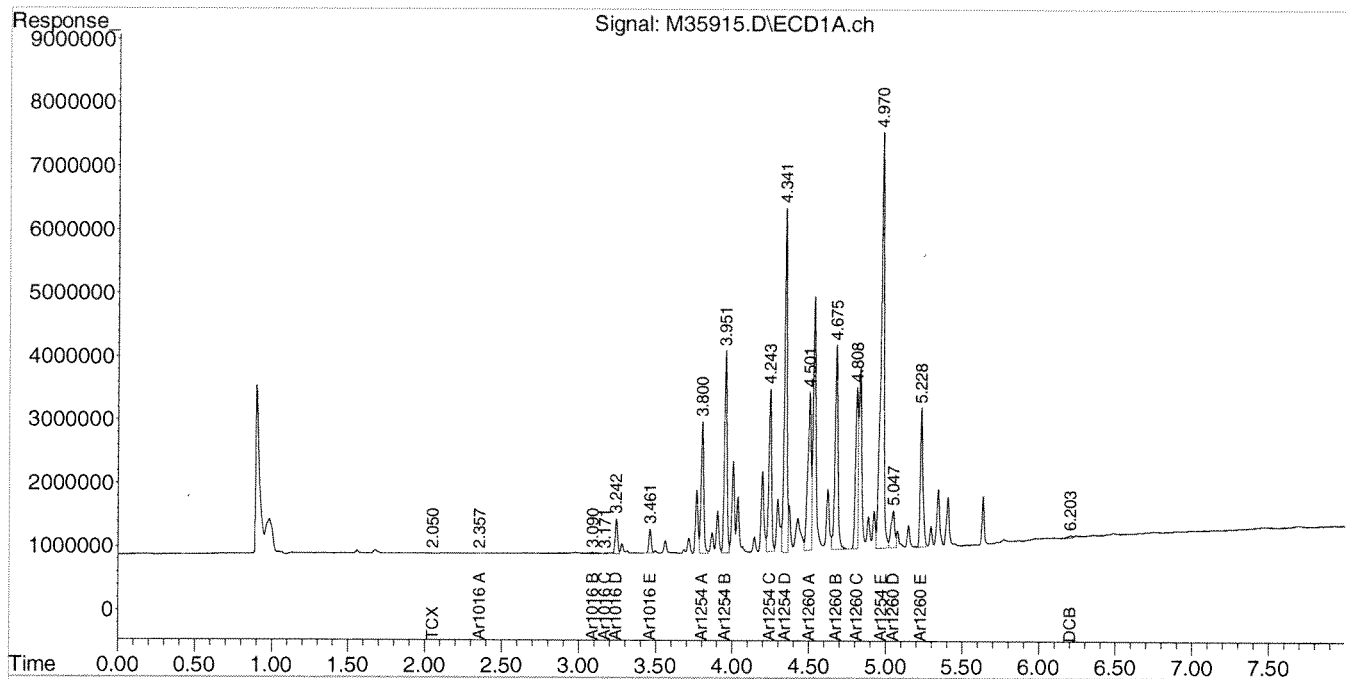
\* Values outside QC limits

Comments: \_\_\_\_\_

Data Path : C:\msdchem\1\DATA\021011-M\  
Data File : M35915.D  
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch  
Acq On : 10 Feb 2011 3:55 pm  
Operator : JK  
Sample : 68987-17,1:50000,,A/C  
Misc : SOIL  
ALS Vial : 12 Sample Multiplier: 1

Integration File signal 1: events.e  
Integration File signal 2: events2.e  
Quant Time: Feb 11 08:25:51 2011  
Quant Method : C:\msdchem\1\METHODS\PCB020711.M  
Quant Title : SW-846 METHOD 8082 Aroclor 1016/1260/1254  
QLast Update : Mon Feb 07 15:22:15 2011  
Response via : Initial Calibration  
Integrator: ChemStation

Volume Inj. : 2 uL  
Signal #1 Phase : STX-CLPPesticides Signal #2 Phase: STX-CLPPesticides  
Signal #1 Info : 30 m x 0.25mm x 0 Signal #2 Info : 30 m x 0.25mm x 0.25 um



Ms. Amy Wallace  
Woodard & Curran  
41 Hutchins Drive  
Portland ME 04102

February 11, 2011

**SAMPLE DATA**

**CLIENT SAMPLE ID**

**Project Name:** USM Gorham  
**Project Number:** 224164  
**Field Sample ID:** UH-CBK-020

**Lab Sample ID:** 68987-18  
**Matrix:** Solid  
**Percent Solid:** 96  
**Dilution Factor:** 61  
**Collection Date:** 02/03/11  
**Lab Receipt Date:** 02/04/11  
**Extraction Date:** 02/04/11  
**Analysis Date:** 02/10/11

**PCB ANALYTICAL RESULTS**

COMPOUND	Quantitation Limit $\mu\text{g/kg}$	Results $\mu\text{g/kg}$
PCB-1016	2010	U
PCB-1221	2010	U
PCB-1232	2010	U
PCB-1242	2010	U
PCB-1248	2010	U
PCB-1254	2010	U
PCB-1260	2010	U
<b><u>Surrogate Standard Recovery</u></b>		
2,4,5,6-Tetrachloro-m-xylene	605*	%
Decachlorobiphenyl	77	%
U=Undetected J=Estimated E=Exceeds Calibration Range B=Detected in		

METHODOLOGY: Sample analysis conducted according to Test Methods for Evaluating Solid Waste, SW-846 Method 8082.

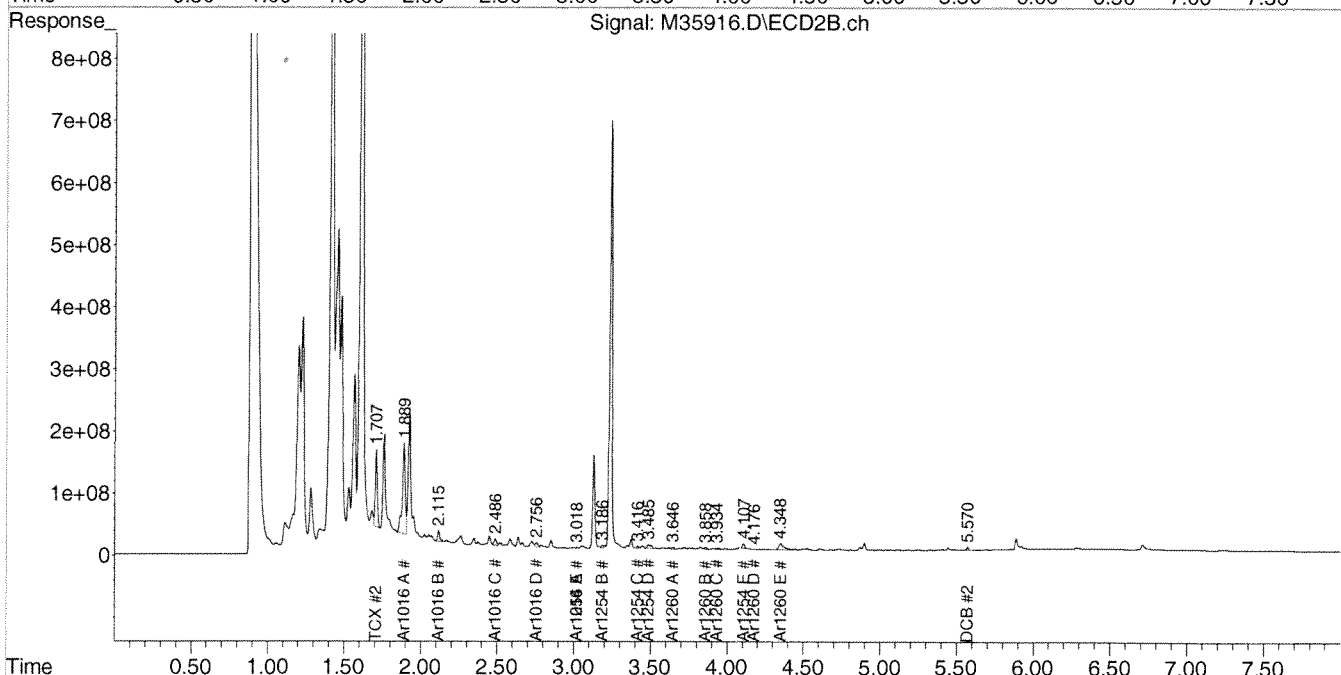
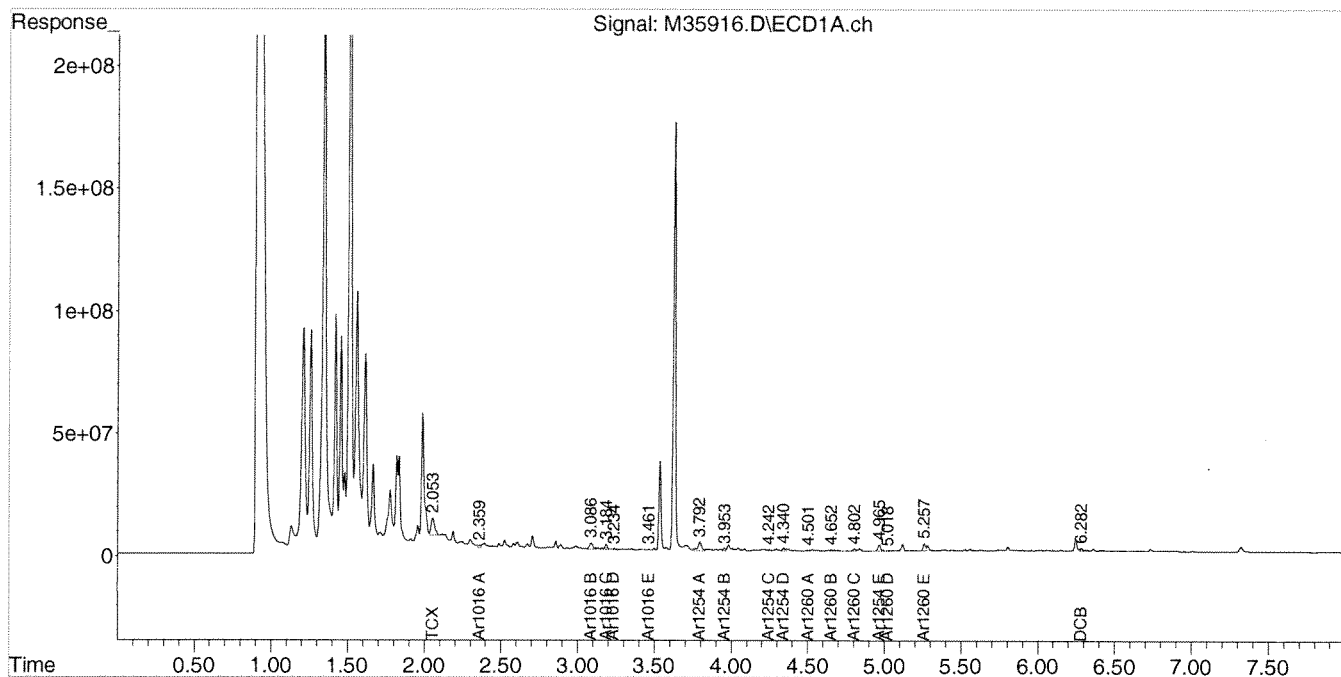
Sample preparation conducted according to Test Methods for Evaluating Solid Waste, SW-846 Method 3540C.

COMMENTS: Results are expressed on a dry weight basis. \* Quantitation limits increased due to the sample matrix affect.  
\* Surrogate recovery outside control limits due to sample matrix interference. Secondary surrogate is in control.

Data Path : C:\msdchem\1\DATA\021011-M\  
Data File : M35916.D  
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch  
Acq On : 10 Feb 2011 4:05 pm  
Operator : JK  
Sample : 68987-18,1:10,,A/C  
Misc : SOIL  
ALS Vial : 13 Sample Multiplier: 1

Integration File signal 1: events.e  
Integration File signal 2: events2.e  
Quant Time: Feb 11 08:27:31 2011  
Quant Method : C:\msdchem\1\METHODS\PCB020711.M  
Quant Title : SW-846 METHOD 8082 Aroclor 1016/1260/1254  
QLast Update : Mon Feb 07 15:22:15 2011  
Response via : Initial Calibration  
Integrator: ChemStation

Volume Inj. : 2 uL  
Signal #1 Phase : STX-CLPPesticides Signal #2 Phase: STX-CLPPesticides  
Signal #1 Info : 30 m x 0.25mm x 0 Signal #2 Info : 30 m x 0.25mm x 0.25 um



Ms. Amy Wallace  
Woodard & Curran  
41 Hutchins Drive  
Portland ME 04102

February 11, 2011

**SAMPLE DATA**

**CLIENT SAMPLE ID**

---

**Project Name:** USM Gorham  
**Project Number:** 224164  
**Field Sample ID:** UH-CBK-021

**Lab Sample ID:** 68987-19  
**Matrix:** Solid  
**Percent Solid:** 99  
**Dilution Factor:** 31  
**Collection Date:** 02/03/11  
**Lab Receipt Date:** 02/04/11  
**Extraction Date:** 02/04/11  
**Analysis Date:** 02/10/11

**PCB ANALYTICAL RESULTS**

COMPOUND	Quantitation Limit $\mu\text{g/kg}$	Results $\mu\text{g/kg}$
PCB-1016	1020	U
PCB-1221	1020	U
PCB-1232	1020	U
PCB-1242	1020	U
PCB-1248	1020	U
PCB-1254	1020	<b>14900</b>
PCB-1260	1020	U
<b><u>Surrogate Standard Recovery</u></b>		
2,4,5,6-Tetrachloro-m-xylene	81	%
Decachlorobiphenyl	58	%
U=Undetected J=Estimated E=Exceeds Calibration Range B=Detected in		

METHODOLOGY: Sample analysis conducted according to Test Methods for Evaluating Solid Waste, SW-846 Method 8082.

Sample preparation conducted according to Test Methods for Evaluating Solid Waste, SW-846 Method 3540C.

COMMENTS: Results are expressed on a dry weight basis.

PCB  
COLUMN RELATIVE PERCENT DIFFERENCE

Instrument ID: M	SDG: 68987
GC Column #1: STX-CLPesticides I	Sample: 68987-19,1:5,,A/C
Column ID: 0.25 mm	Data File: M35917.D
GC Column #2: STX-CLPesticides II	Dilution Factor: 31.3
Column ID: 0.25 mm	

Column #1		Column #2	
COMPOUND	SAMPLE RESULT (ug/kg)	SAMPLE RESULT (ug/kg)	RPD #
PCB 1254	14867	13727	8.0

# Column to be used to flag RPD values greater than QC limit of 40%

\* Values outside QC limits

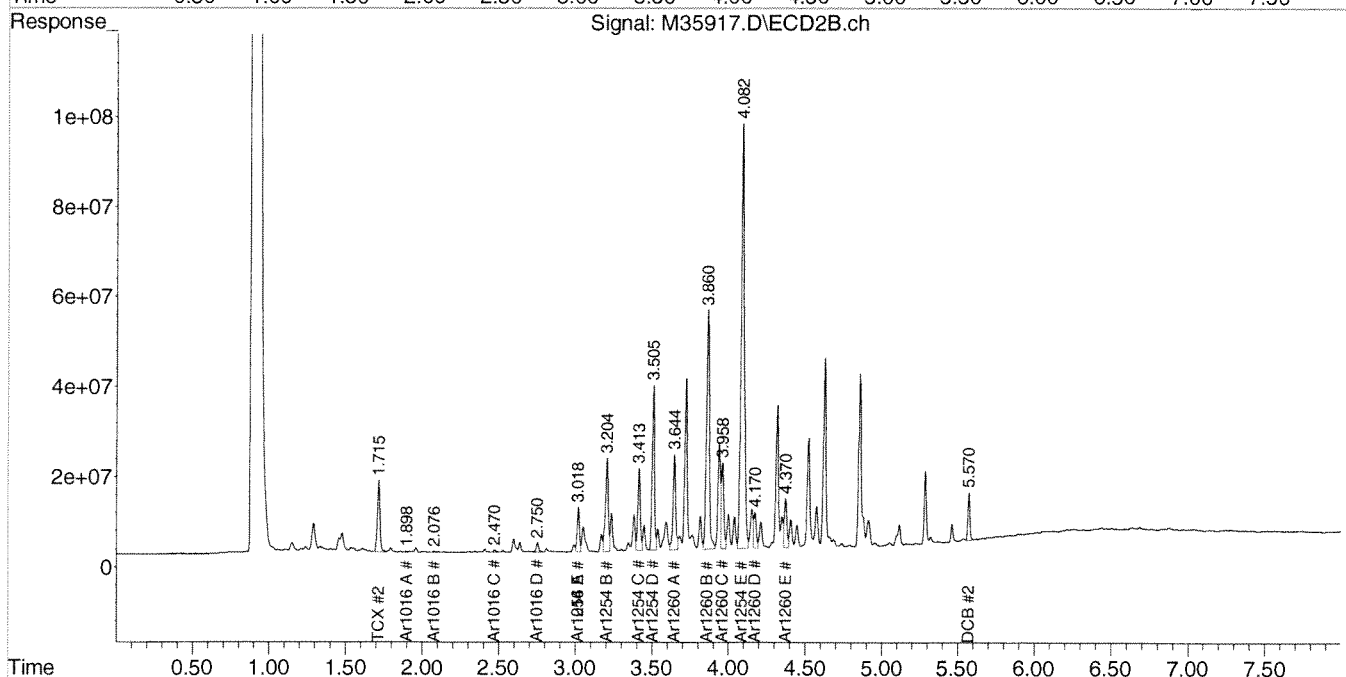
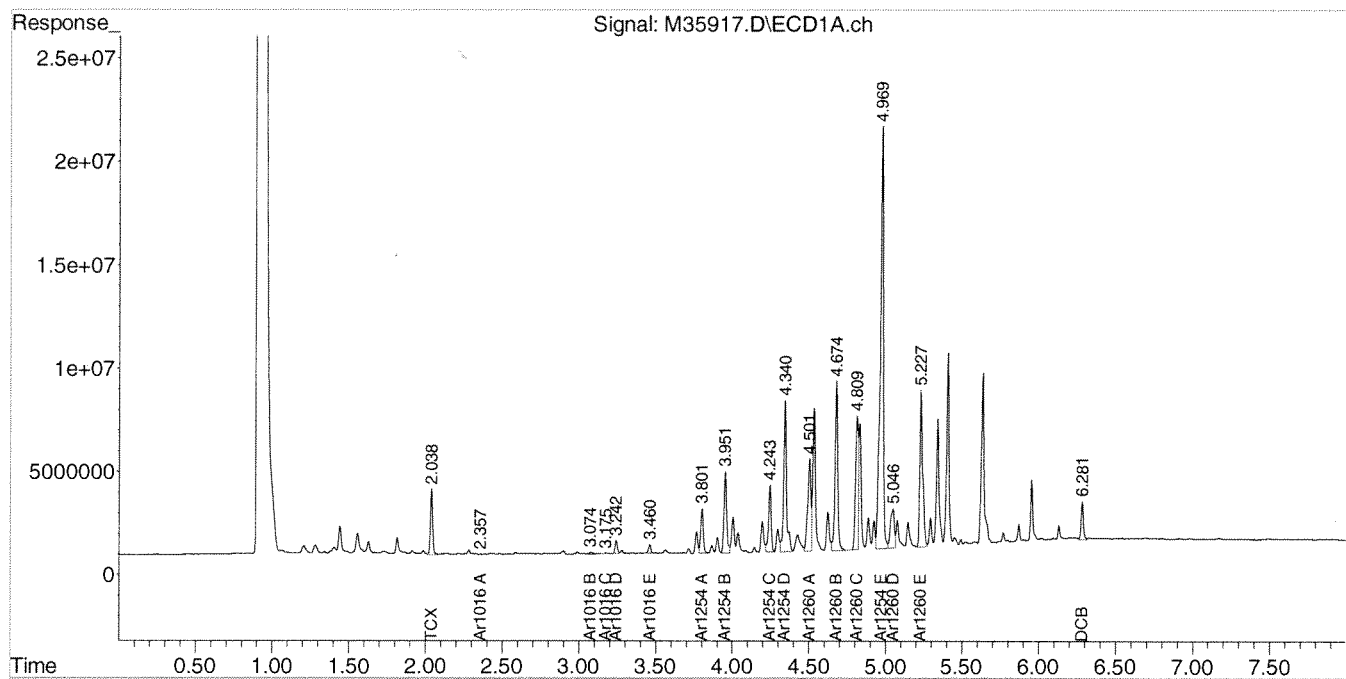
Comments: \_\_\_\_\_



Data Path : C:\msdchem\1\DATA\021011-M\  
Data File : M35917.D  
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch  
Acq On : 10 Feb 2011 4:16 pm  
Operator : JK  
Sample : 68987-19,1:5,,A/C  
Misc : SOIL  
ALS Vial : 14 Sample Multiplier: 1

Integration File signal 1: events.e  
Integration File signal 2: events2.e  
Quant Time: Feb 11 08:34:23 2011  
Quant Method : C:\msdchem\1\METHODS\PCB020711.M  
Quant Title : SW-846 METHOD 8082 Aroclor 1016/1260/1254  
QLast Update : Mon Feb 07 15:22:15 2011  
Response via : Initial Calibration  
Integrator: ChemStation

Volume Inj. : 2 uL  
Signal #1 Phase : STX-CLPPesticides Signal #2 Phase: STX-CLPPesticides  
Signal #1 Info : 30 m x 0.25mm x 0 Signal #2 Info : 30 m x 0.25mm x 0.25 um



Ms. Amy Wallace  
Woodard & Curran  
41 Hutchins Drive  
Portland ME 04102

February 11, 2011

**SAMPLE DATA**

**CLIENT SAMPLE ID**

**Project Name:** USM Gorham  
**Project Number:** 224164  
**Field Sample ID:** UH-CBK-022

**Lab Sample ID:** 68987-20  
**Matrix:** Solid  
**Percent Solid:** 98  
**Dilution Factor:** 9  
**Collection Date:** 02/03/11  
**Lab Receipt Date:** 02/04/11  
**Extraction Date:** 02/04/11  
**Analysis Date:** 02/10/11

**PCB ANALYTICAL RESULTS**

COMPOUND	Quantitation Limit µg/kg	Results µg/kg
PCB-1016	300	U
PCB-1221	300	U
PCB-1232	300	U
PCB-1242	300	U
PCB-1248	300	U
PCB-1254	300	<b>1010</b>
PCB-1260	300	U
<b><u>Surrogate Standard Recovery</u></b>		
2,4,5,6-Tetrachloro-m-xylene	96	%
Decachlorobiphenyl	39*	%
U=Undetected J=Estimated E=Exceeds Calibration Range B=Detected in		

METHODOLOGY: Sample analysis conducted according to Test Methods for Evaluating Solid Waste, SW-846 Method 8082.

Sample preparation conducted according to Test Methods for Evaluating Solid Waste, SW-846 Method 3540C.

COMMENTS:

Results are expressed on a dry weight basis.

\* Surrogate recovery outside control limits. Secondary surrogate is in control.

PCB  
COLUMN RELATIVE PERCENT DIFFERENCE

Instrument ID: M	SDG: 68987
GC Column #1: STX-CLPesticides I	Sample: 68987-20,,A/C
Column ID: 0.25 mm	Data File: M35921.D
GC Column #2: STX-CLPesticides II	Dilution Factor: 9.0
Column ID: 0.25 mm	

Column #1		Column #2			
COMPOUND	SAMPLE RESULT (ug/kg)	SAMPLE RESULT (ug/kg)	RPD	#	
PCB 1254	949	1006	5.9		

# Column to be used to flag RPD values greater than QC limit of 40%

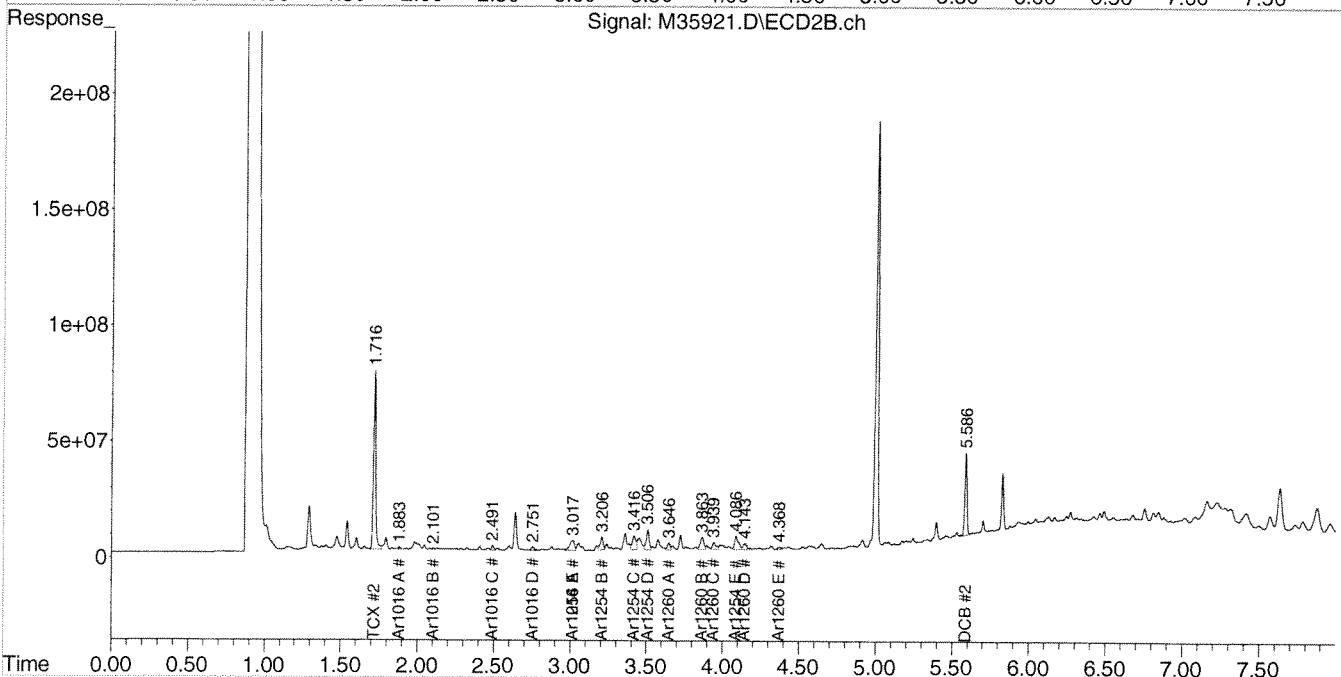
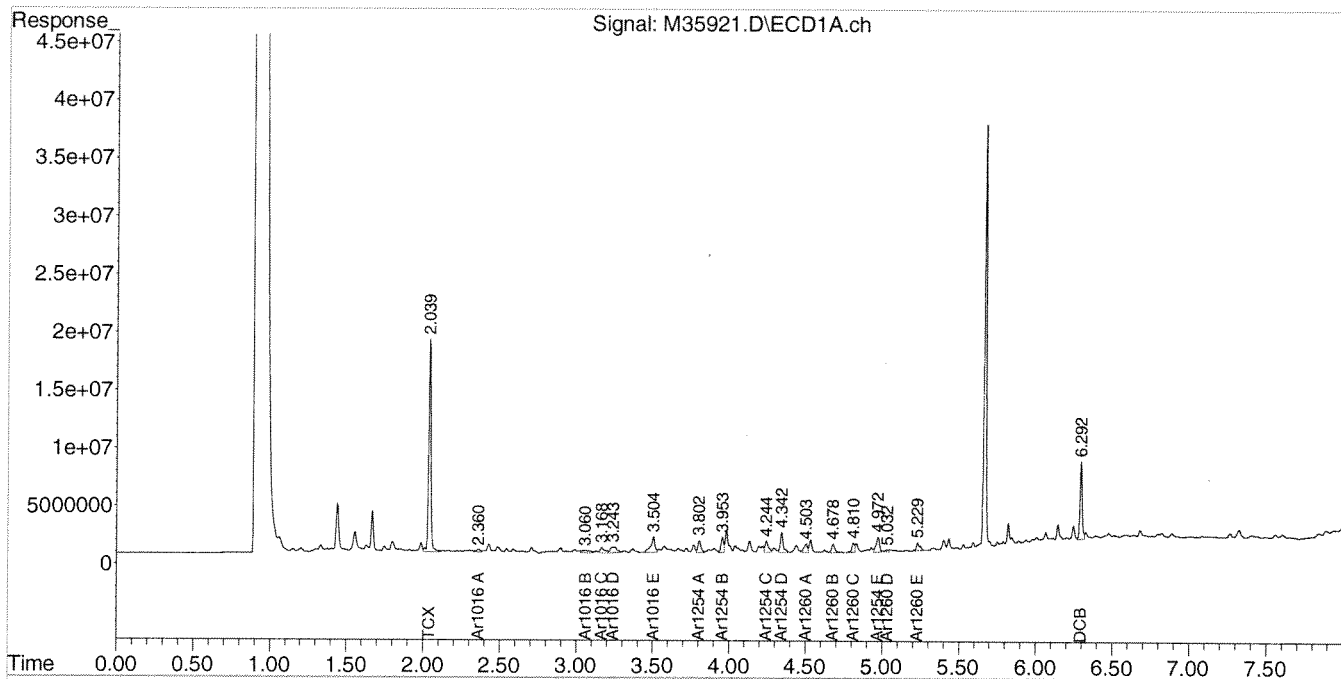
\* Values outside QC limits

Comments: \_\_\_\_\_

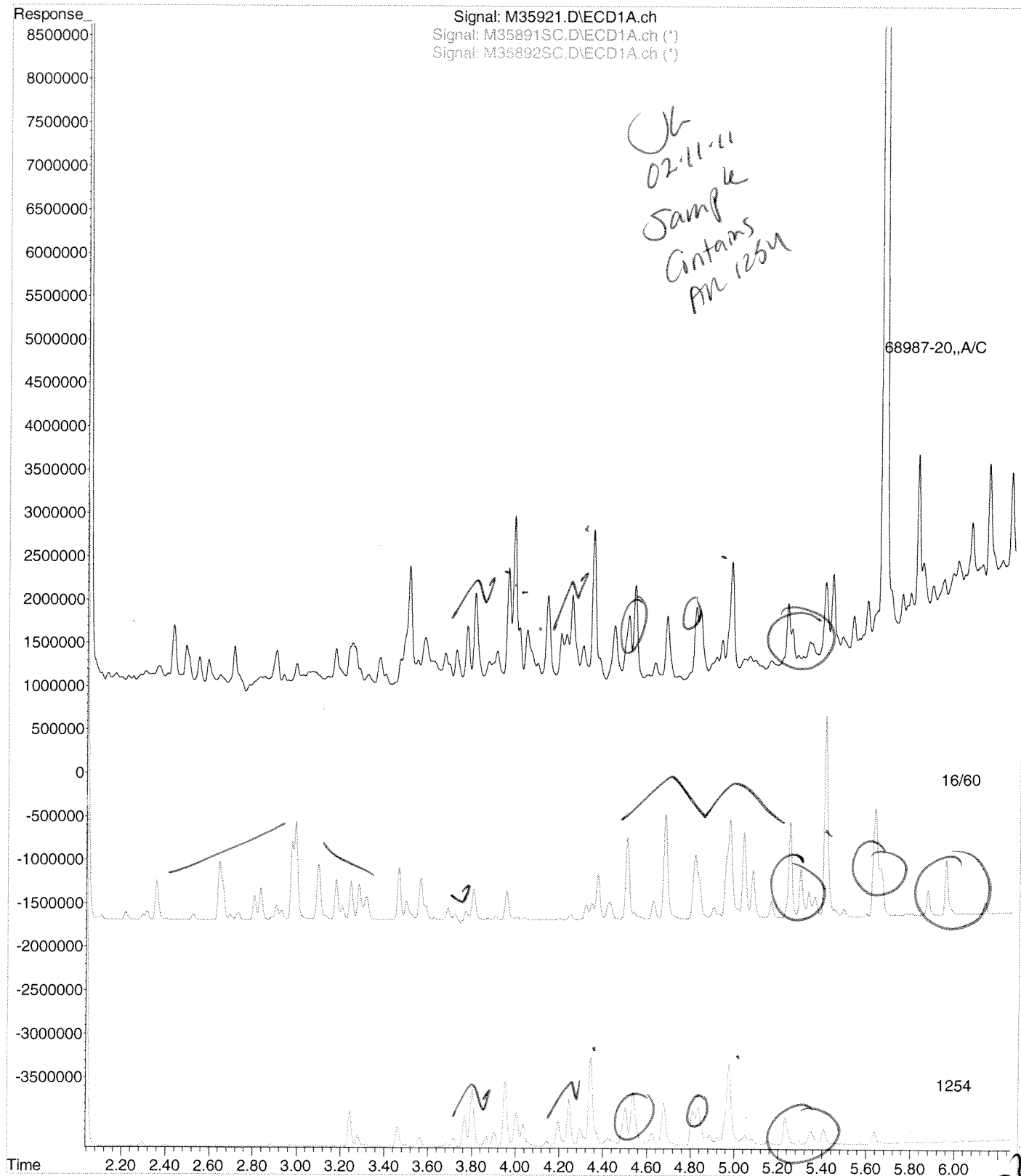
Data Path : C:\msdchem\1\DATA\021011-M\  
Data File : M35921.D  
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch  
Acq On : 10 Feb 2011 4:57 pm  
Operator : JK  
Sample : 68987-20,,A/C  
Misc : SOIL  
ALS Vial : 7 Sample Multiplier: 1

Integration File signal 1: events.e  
Integration File signal 2: events2.e  
Quant Time: Feb 10 22:56:58 2011  
Quant Method : C:\msdchem\1\METHODS\PCB020711.M  
Quant Title : SW-846 METHOD 8082 Aroclor 1016/1260/1254  
QLast Update : Mon Feb 07 15:22:15 2011  
Response via : Initial Calibration  
Integrator: ChemStation

Volume Inj. : 2 uL  
Signal #1 Phase : STX-CLPPesticides Signal #2 Phase: STX-CLPPesticides  
Signal #1 Info : 30 m x 0.25mm x 0 Signal #2 Info : 30 m x 0.25mm x 0.25 um



File :C:\msdchem\1\DATA\021011-M\M35921.D  
Operator : JK  
Acquired : 10 Feb 2011 4:57 pm using AcqMethod PEST.M  
Instrument : Instrument M  
Sample Name: 68987-20,,A/C  
Misc Info : SOIL  
Vial Number: 7



Ms. Amy Wallace  
Woodard & Curran  
41 Hutchins Drive  
Portland ME 04102

February 11, 2011

**SAMPLE DATA**

**CLIENT SAMPLE ID**

**Project Name:** USM Gorham

**Project Number:** 224164

**Field Sample ID:** UH-CBK-023

**Lab Sample ID:** 68987-21

**Matrix:** Solid

**Percent Solid:** 100

**Dilution Factor:** 10

**Collection Date:** 02/03/11

**Lab Receipt Date:** 02/04/11

**Extraction Date:** 02/04/11

**Analysis Date:** 02/10/11

**PCB ANALYTICAL RESULTS**

COMPOUND	Quantitation Limit $\mu\text{g/kg}$	Results $\mu\text{g/kg}$
PCB-1016	330	U
PCB-1221	330	U
PCB-1232	330	U
PCB-1242	330	U
PCB-1248	330	U
PCB-1254	330	U
PCB-1260	330	U
<b>Surrogate Standard Recovery</b>		
2,4,5,6-Tetrachloro-m-xylene	169* %	
Decachlorobiphenyl	49 %	
U=Undetected J=Estimated E=Exceeds Calibration Range B=Detected in		

METHODOLOGY: Sample analysis conducted according to Test Methods for Evaluating Solid Waste, SW-846 Method 8082.

Sample preparation conducted according to Test Methods for Evaluating Solid Waste, SW-846 Method 3540C.

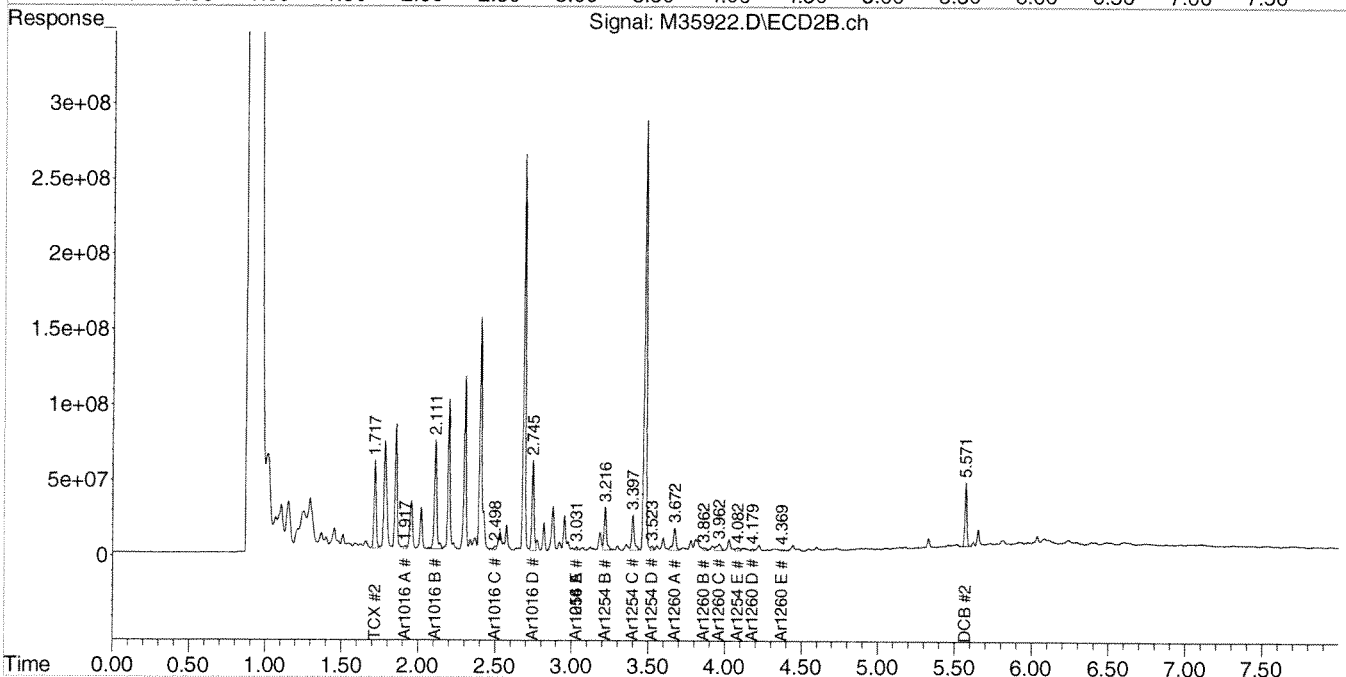
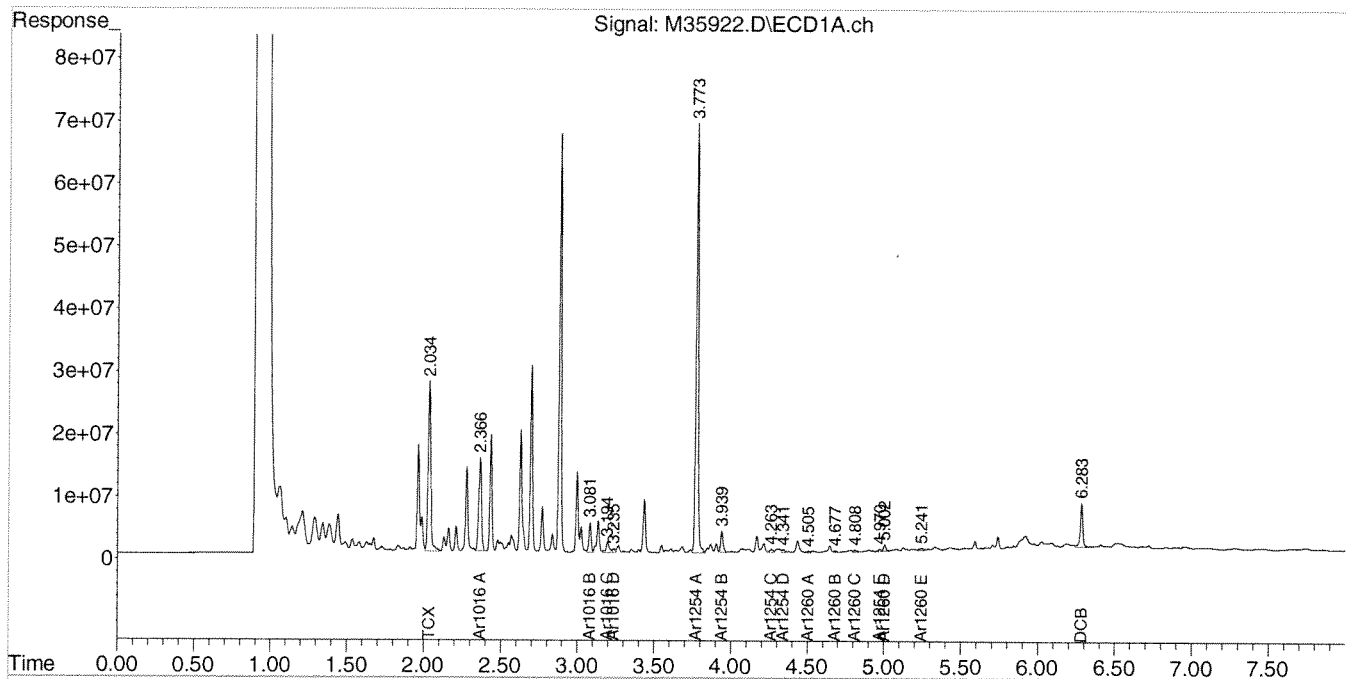
COMMENTS: Results are expressed on a dry weight basis.

\* Surrogate recovery outside control limits due to sample matrix interference. Secondary surrogate is in control.

Data Path : C:\msdchem\1\DATA\021011-M\  
Data File : M35922.D  
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch  
Acq On : 10 Feb 2011 5:07 pm  
Operator : JK  
Sample : 68987-21,,A/C  
Misc : SOIL  
ALS Vial : 8 Sample Multiplier: 1

Integration File signal 1: events.e  
Integration File signal 2: events2.e  
Quant Time: Feb 10 22:57:24 2011  
Quant Method : C:\msdchem\1\METHODS\PCB020711.M  
Quant Title : SW-846 METHOD 8082 Aroclor 1016/1260/1254  
QLast Update : Mon Feb 07 15:22:15 2011  
Response via : Initial Calibration  
Integrator: ChemStation

Volume Inj. : 2 uL  
Signal #1 Phase : STX-CLPPesticides Signal #2 Phase: STX-CLPPesticides  
Signal #1 Info : 30 m x 0.25mm x 0 Signal #2 Info : 30 m x 0.25mm x 0.25 um



Ms. Amy Wallace  
Woodard & Curran  
41 Hutchins Drive  
Portland ME 04102

February 11, 2011

**SAMPLE DATA**

**CLIENT SAMPLE ID**

---

**Project Name:** USM Gorham  
**Project Number:** 224164  
**Field Sample ID:** UH-CBK-024

**Lab Sample ID:** 68987-22  
**Matrix:** Solid  
**Percent Solid:** 99  
**Dilution Factor:** 6  
**Collection Date:** 02/03/11  
**Lab Receipt Date:** 02/04/11  
**Extraction Date:** 02/07/11  
**Analysis Date:** 02/08/11

**PCB ANALYTICAL RESULTS**

COMPOUND	Quantitation Limit $\mu\text{g/kg}$	Results $\mu\text{g/kg}$
PCB-1016	200	U
PCB-1221	200	U
PCB-1232	200	U
PCB-1242	200	U
PCB-1248	200	U
PCB-1254	200	<b>1180</b>
PCB-1260	200	U
<b><u>Surrogate Standard Recovery</u></b>		
2,4,5,6-Tetrachloro-m-xylene	82	%
Decachlorobiphenyl	49	%
U=Undetected J=Estimated E=Exceeds Calibration Range B=Detected in		

METHODOLOGY: Sample analysis conducted according to Test Methods for Evaluating Solid Waste, SW-846 Method 8082.

Sample preparation conducted according to Test Methods for Evaluating Solid Waste, SW-846 Method 3540C.

COMMENTS: Results are expressed on a dry weight basis.



PCB  
COLUMN RELATIVE PERCENT DIFFERENCE

Instrument ID: M	SDG: 68987
GC Column #1: STX-CLPesticides I	Sample: 68987-22,,A/C
Column ID: 0.25 mm	Data File: M35719.D
GC Column #2: STX-CLPesticides II	Dilution Factor: 6.3
Column ID: 0.25 mm	

Column #1		Column #2	
COMPOUND	SAMPLE RESULT (ug/kg)	SAMPLE RESULT (ug/kg)	RPD
PCB 1254	1185	975	19.5

# Column to be used to flag RPD values greater than QC limit of 40%

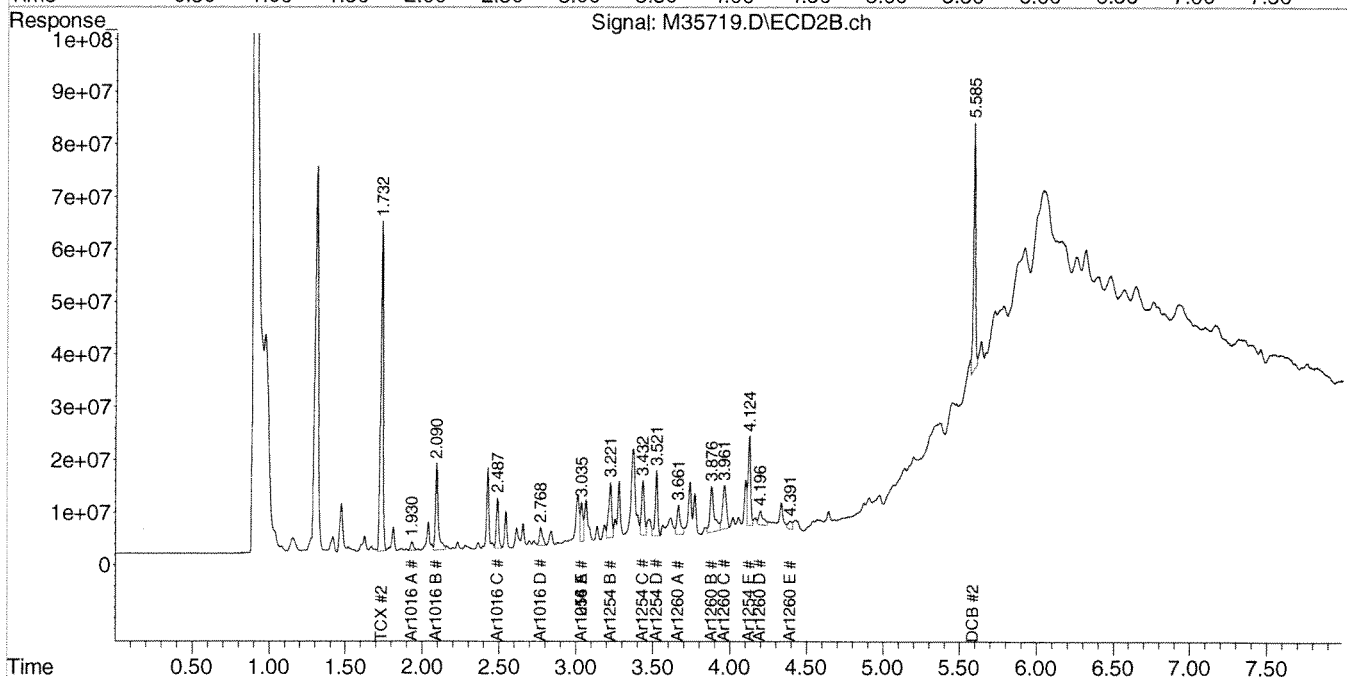
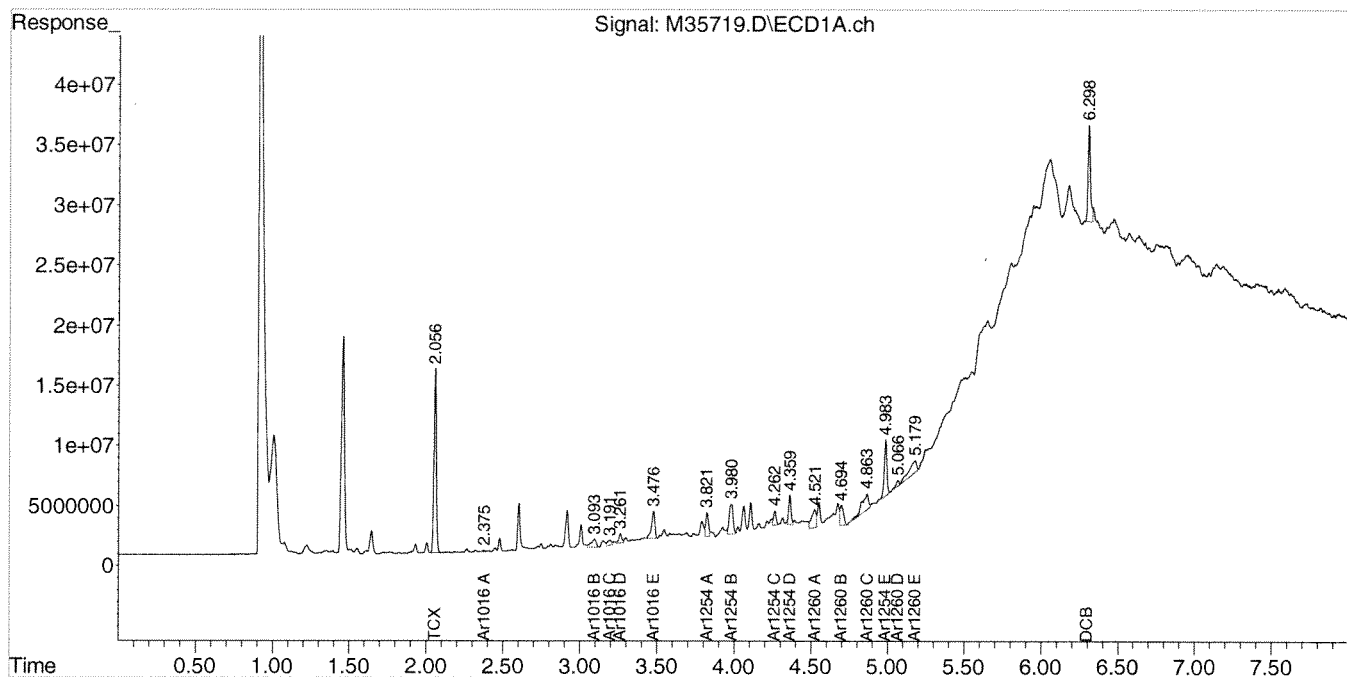
\* Values outside QC limits

Comments: \_\_\_\_\_

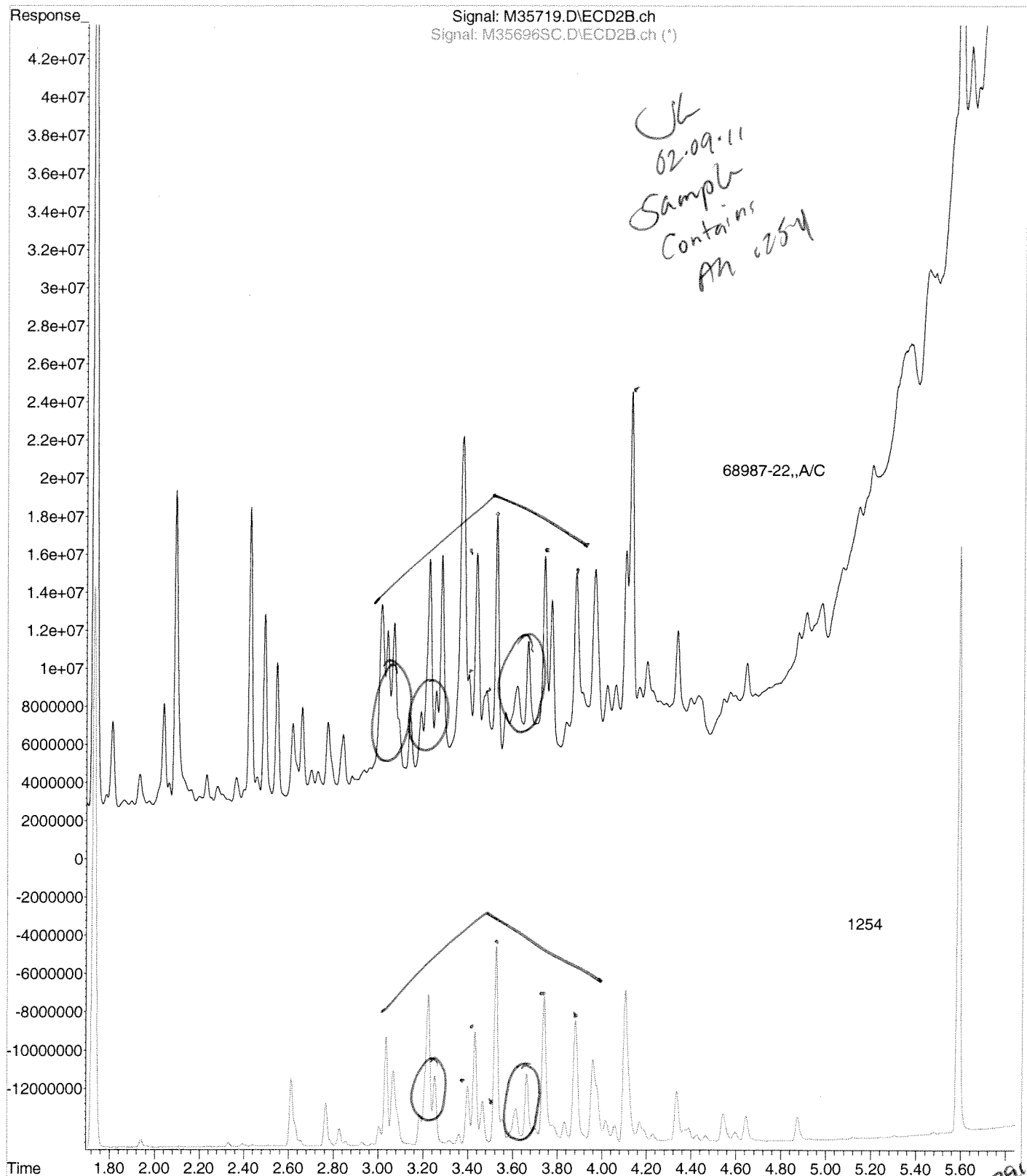
Data Path : C:\msdchem\1\DATA\020811-M\  
Data File : M35719.D  
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch  
Acq On : 8 Feb 2011 2:15 pm  
Operator : JK  
Sample : 68987-22,,A/C  
Misc : SOIL  
ALS Vial : 15 Sample Multiplier: 1

Integration File signal 1: events.e  
Integration File signal 2: events2.e  
Quant Time: Feb 09 12:29:35 2011  
Quant Method : C:\msdchem\1\METHODS\PCB020711.M  
Quant Title : SW-846 METHOD 8082 Aroclor 1016/1260/1254  
QLast Update : Mon Feb 07 15:22:15 2011  
Response via : Initial Calibration  
Integrator: ChemStation

Volume Inj. : 2 uL  
Signal #1 Phase : STX-CLPPesticides Signal #2 Phase: STX-CLPPesticides  
Signal #1 Info : 30 m x 0.25mm x 0 Signal #2 Info : 30 m x 0.25mm x 0.25 um



File :C:\msdchem\1\DATA\020811-M\M35719.D  
Operator : JK  
Acquired : 8 Feb 2011 2:15 pm using AcqMethod PEST.M  
Instrument : Instrument M  
Sample Name: 68987-22,,A/C  
Misc Info : SOIL  
Vial Number: 15



Ms. Amy Wallace  
Woodard & Curran  
41 Hutchins Drive  
Portland ME 04102

February 11, 2011

**SAMPLE DATA**

**CLIENT SAMPLE ID**

**Project Name:** USM Gorham  
**Project Number:** 224164  
**Field Sample ID:** UH-CBK-025

**Lab Sample ID:** 68987-23  
**Matrix:** Solid  
**Percent Solid:** 99  
**Dilution Factor:** 7  
**Collection Date:** 02/03/11  
**Lab Receipt Date:** 02/04/11  
**Extraction Date:** 02/07/11  
**Analysis Date:** 02/08/11

**PCB ANALYTICAL RESULTS**

COMPOUND	Quantitation Limit $\mu\text{g/kg}$	Results $\mu\text{g/kg}$
PCB-1016	230	U
PCB-1221	230	U
PCB-1232	230	U
PCB-1242	230	U
PCB-1248	230	U
PCB-1254	230	U
PCB-1260	230	U
<b><u>Surrogate Standard Recovery</u></b>		
2,4,5,6-Tetrachloro-m-xylene	102 %	
Decachlorobiphenyl	2341* %	
U=Undetected J=Estimated E=Exceeds Calibration Range B=Detected in		

METHODOLOGY: Sample analysis conducted according to Test Methods for Evaluating Solid Waste, SW-846 Method 8082.

Sample preparation conducted according to Test Methods for Evaluating Solid Waste, SW-846 Method 3540C.

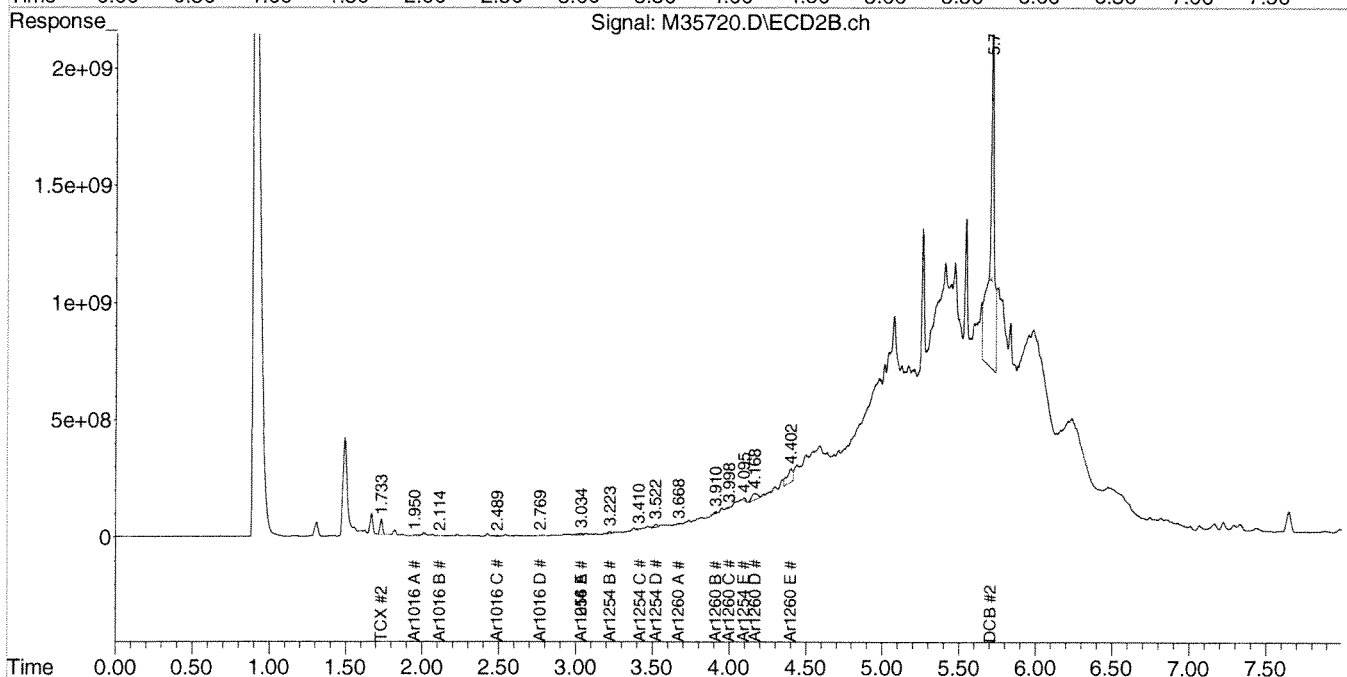
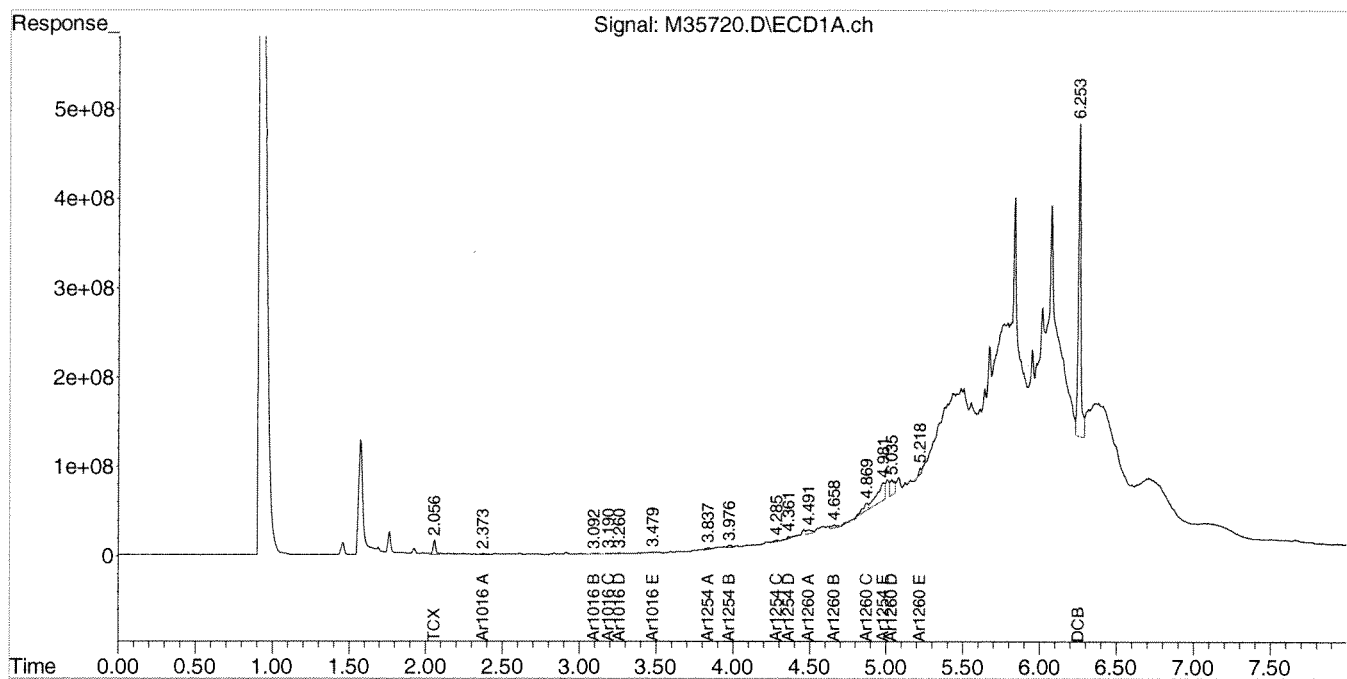
COMMENTS: Results are expressed on a dry weight basis.

\* Surrogate recovery outside control limits due to sample matrix interference. Secondary surrogate is in control.

Data Path : C:\msdchem\1\DATA\020811-M\  
Data File : M35720.D  
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch  
Acq On : 8 Feb 2011 2:25 pm  
Operator : JK  
Sample : 68987-23,,A/C  
Misc : SOIL  
ALS Vial : 16 Sample Multiplier: 1

Integration File signal 1: events.e  
Integration File signal 2: events2.e  
Quant Time: Feb 09 10:39:31 2011  
Quant Method : C:\msdchem\1\METHODS\PCB020711.M  
Quant Title : SW-846 METHOD 8082 Aroclor 1016/1260/1254  
QLast Update : Mon Feb 07 15:22:15 2011  
Response via : Initial Calibration  
Integrator: ChemStation

Volume Inj. : 2 uL  
Signal #1 Phase : STX-CLPPesticides Signal #2 Phase: STX-CLPPesticides  
Signal #1 Info : 30 m x 0.25mm x 0 Signal #2 Info : 30 m x 0.25mm x 0.25 um



Ms. Amy Wallace  
Woodard & Curran  
41 Hutchins Drive  
Portland ME 04102

February 11, 2011

**SAMPLE DATA**

**CLIENT SAMPLE ID**  
**Project Name:** USM Gorham  
**Project Number:** 224164  
**Field Sample ID:** UH-CBK-026

**Lab Sample ID:** 68987-24  
**Matrix:** Solid  
**Percent Solid:** 100  
**Dilution Factor:** 8310  
**Collection Date:** 02/03/11  
**Lab Receipt Date:** 02/04/11  
**Extraction Date:** 02/07/11  
**Analysis Date:** 02/10/11

PCB ANALYTICAL RESULTS		
COMPOUND	Quantitation Limit µg/kg	Results µg/kg
PCB-1016	274000	U
PCB-1221	274000	U
PCB-1232	274000	U
PCB-1242	274000	U
PCB-1248	274000	U
PCB-1254	274000	U
PCB-1260	274000	<b>5660000</b>
<b><u>Surrogate Standard Recovery</u></b>		
2,4,5,6-Tetrachloro-m-xylene	*	%
Decachlorobiphenyl	*	%
U=Undetected J=Estimated E=Exceeds Calibration Range B=Detected in		

METHODOLOGY: Sample analysis conducted according to Test Methods for Evaluating Solid Waste, SW-846 Method 8082.

Sample preparation conducted according to Test Methods for Evaluating Solid Waste, SW-846 Method 3540C.

COMMENTS: Results are expressed on a dry weight basis.  
\* The surrogates were diluted out.

PCB  
COLUMN RELATIVE PERCENT DIFFERENCE

Instrument ID: M

SDG: 68987

GC Column #1: STX-CLPesticides I

Sample: 68987-24,1:1000,,A/C

Column ID: 0.25 mm

Data File: M35942.D

GC Column #2: STX-CLPesticides II

Dilution Factor: 8305.2

Column ID: 0.25 mm

Column #1		Column #2		
COMPOUND	SAMPLE RESULT (ug/kg)	SAMPLE RESULT (ug/kg)	RPD	#
PCB 1260	5660674	5364224	5.4	

# Column to be used to flag RPD values greater than QC limit of 40%

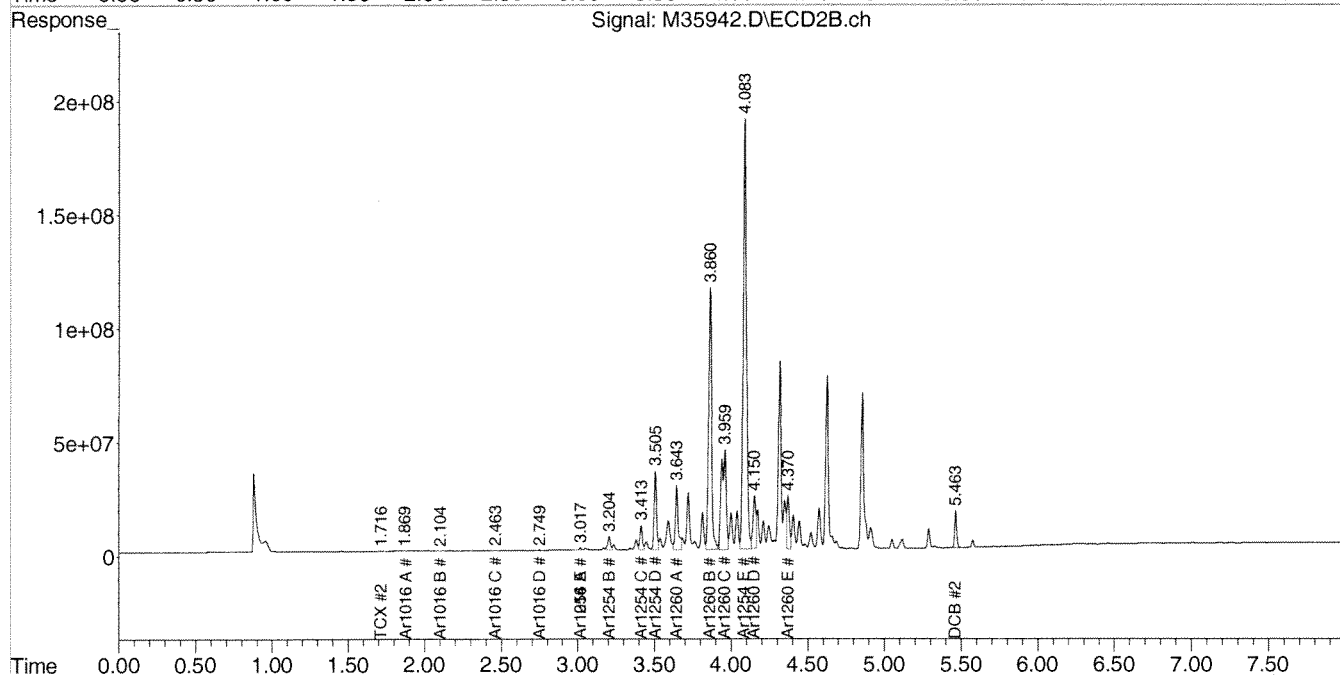
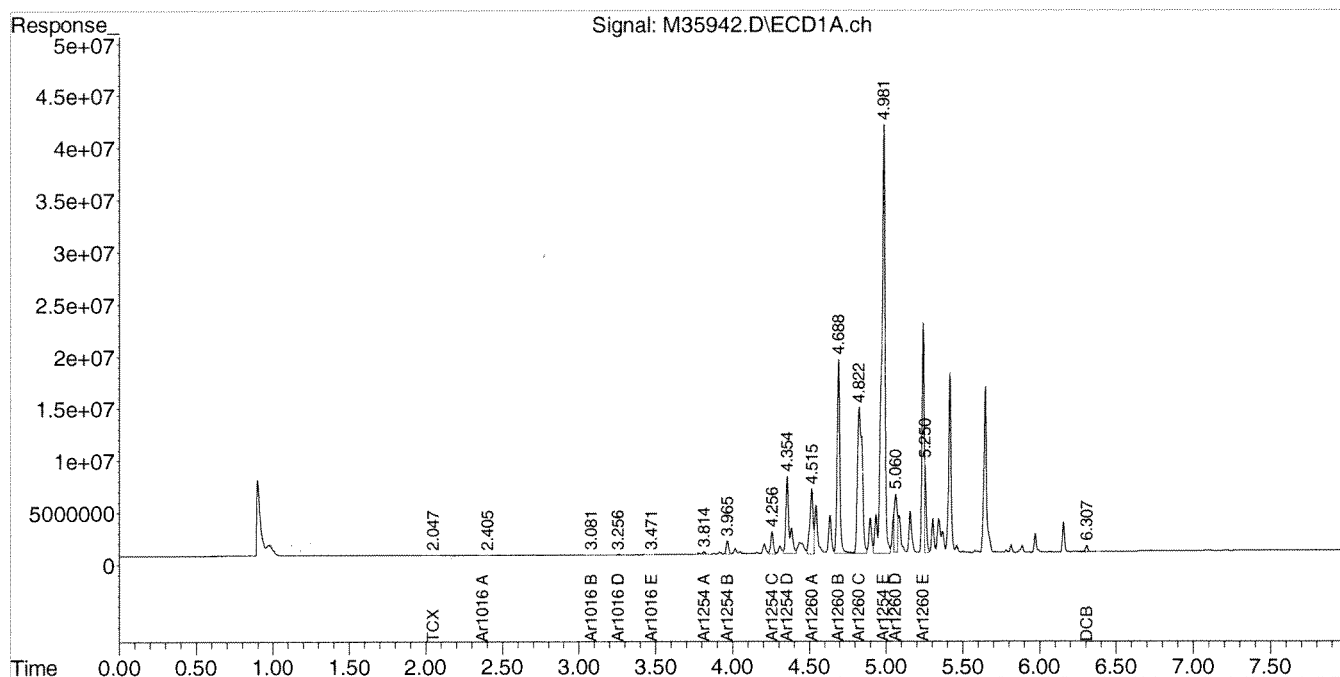
\* Values outside QC limits

Comments: \_\_\_\_\_

Data Path : C:\msdchem\1\DATA\021011-M\  
Data File : M35942.D  
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch  
Acq On : 10 Feb 2011 11:16 pm  
Operator : JK  
Sample : 68987-24,1:1000,,A/C  
Misc : SOIL  
ALS Vial : 27 Sample Multiplier: 1

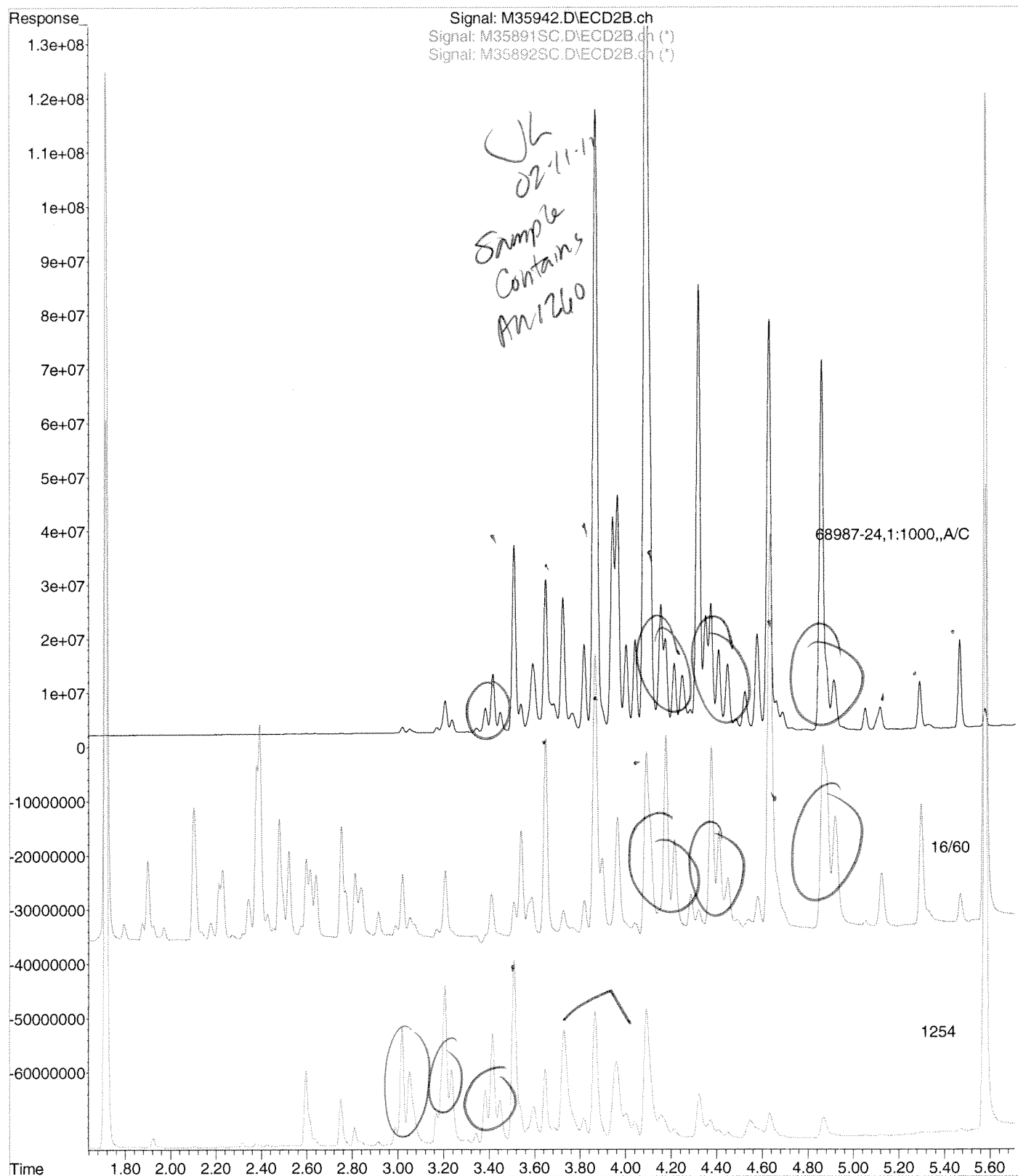
Integration File signal 1: events.e  
Integration File signal 2: events2.e  
Quant Time: Feb 11 10:56:46 2011  
Quant Method : C:\msdchem\1\METHODS\PCB020711.M  
Quant Title : SW-846 METHOD 8082 Aroclor 1016/1260/1254  
QLast Update : Mon Feb 07 15:22:15 2011  
Response via : Initial Calibration  
Integrator: ChemStation

Volume Inj. : 2 uL  
Signal #1 Phase : STX-CLPPesticides Signal #2 Phase: STX-CLPPesticides  
Signal #1 Info : 30 m x 0.25mm x 0 Signal #2 Info : 30 m x 0.25mm x 0.25 um





File :C:\msdchem\1\DATA\021011-M\M35942.D  
Operator : JK  
Acquired : 10 Feb 2011 11:16 pm using AcqMethod PEST.M  
Instrument : Instrument M  
Sample Name: 68987-24,1:1000,,A/C  
Misc Info : SOIL  
Vial Number: 27



Ms. Amy Wallace  
Woodard & Curran  
41 Hutchins Drive  
Portland ME 04102

February 11, 2011

**SAMPLE DATA**

**CLIENT SAMPLE ID**  
**Project Name:** USM Gorham  
**Project Number:** 224164  
**Field Sample ID:** UH-CBB-027

**Lab Sample ID:** 68987-25  
**Matrix:** Solid  
**Percent Solid:** 99  
**Dilution Factor:** 1.0  
**Collection Date:** 02/03/11  
**Lab Receipt Date:** 02/04/11  
**Extraction Date:** 02/07/11  
**Analysis Date:** 02/10/11

**PCB ANALYTICAL RESULTS**

COMPOUND	Quantitation Limit $\mu\text{g/kg}$	Results $\mu\text{g/kg}$
PCB-1016	33	U
PCB-1221	33	U
PCB-1232	33	U
PCB-1242	33	U
PCB-1248	33	U
PCB-1254	33	<b>162</b>
PCB-1260	33	U
<b><u>Surrogate Standard Recovery</u></b>		
2,4,5,6-Tetrachloro-m-xylene	90	%
Decachlorobiphenyl	49	%
U=Undetected J=Estimated E=Exceeds Calibration Range B=Detected in		

METHODOLOGY: Sample analysis conducted according to Test Methods for Evaluating Solid Waste, SW-846 Method 8082.

Sample preparation conducted according to Test Methods for Evaluating Solid Waste, SW-846 Method 3540C.

COMMENTS: Results are expressed on a dry weight basis.

PCB  
COLUMN RELATIVE PERCENT DIFFERENCE

Instrument ID: M

SDG: 68987

GC Column #1: STX-CLPesticides I

Sample: 68987-25,,A/C

Column ID: 0.25 mm

Data File: M35931.D

GC Column #2: STX-CLPesticides II

Dilution Factor: 1.0

Column ID: 0.25 mm

Column #1		Column #2		
COMPOUND	SAMPLE RESULT (ug/kg)	SAMPLE RESULT (ug/kg)	RPD	#
PCB 1254	162	137	16.2	

# Column to be used to flag RPD values greater than QC limit of 40%

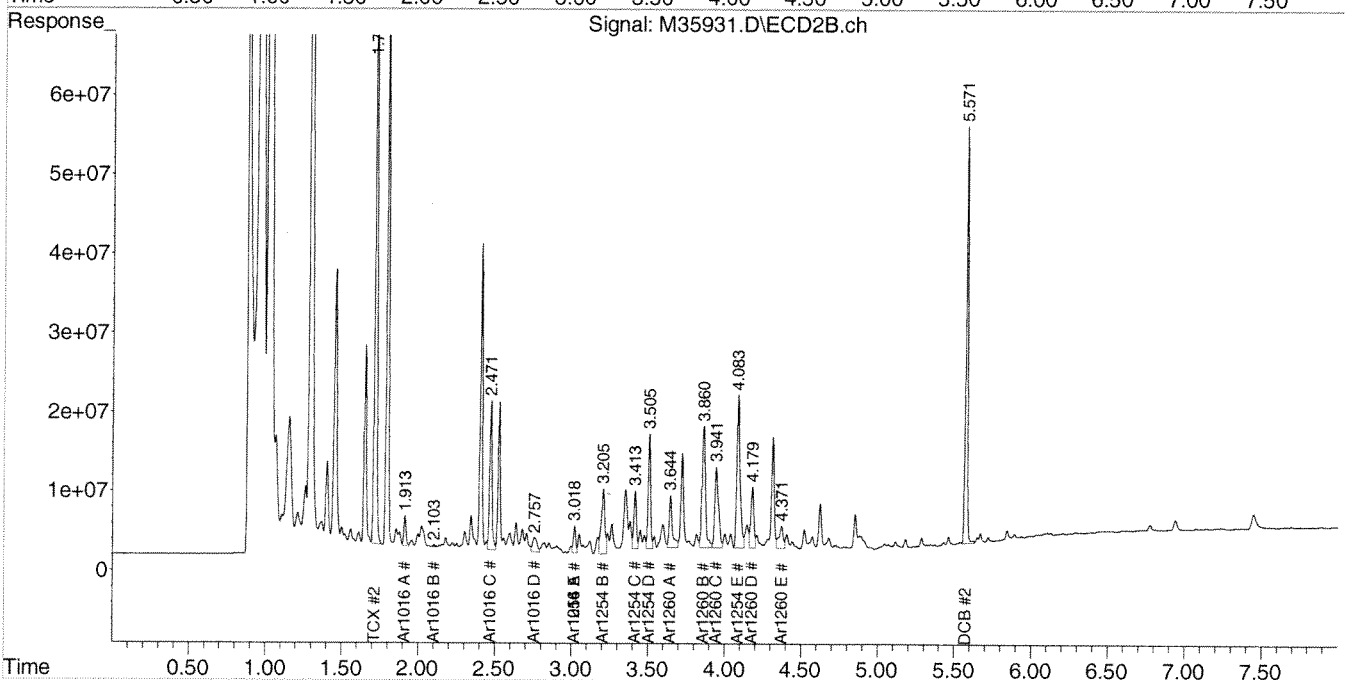
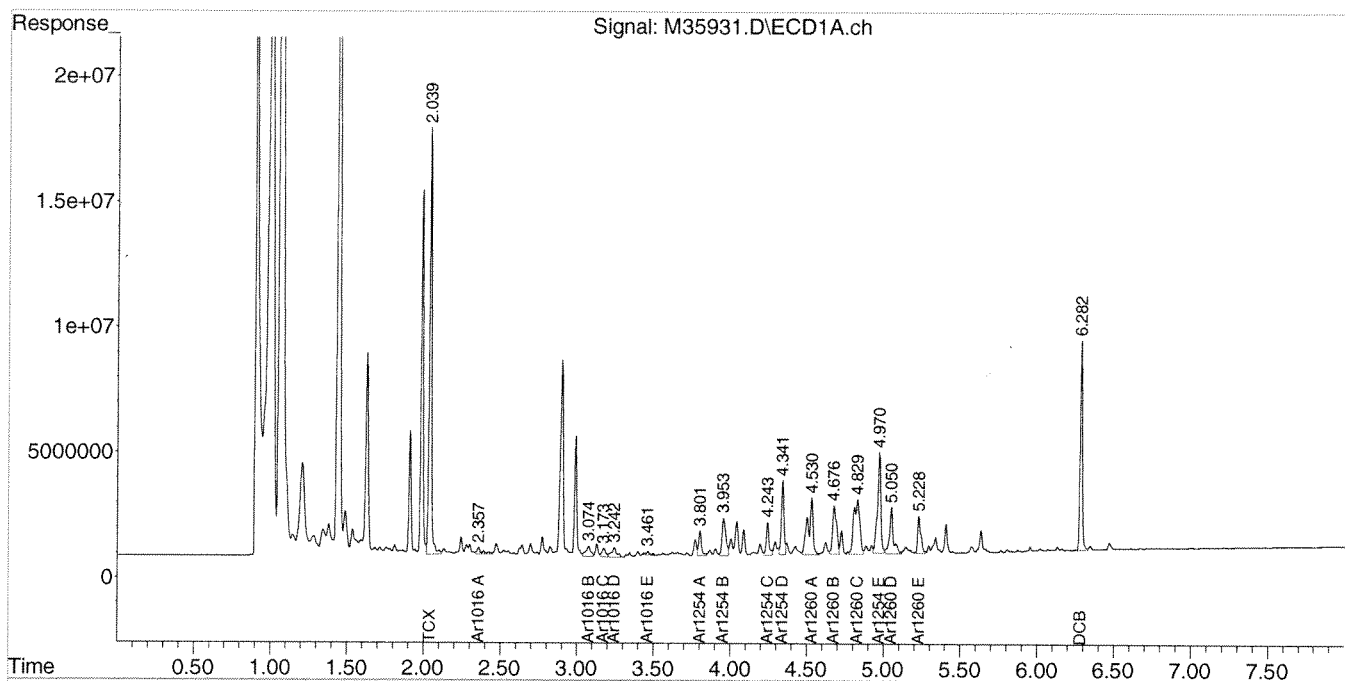
\* Values outside QC limits

Comments: \_\_\_\_\_

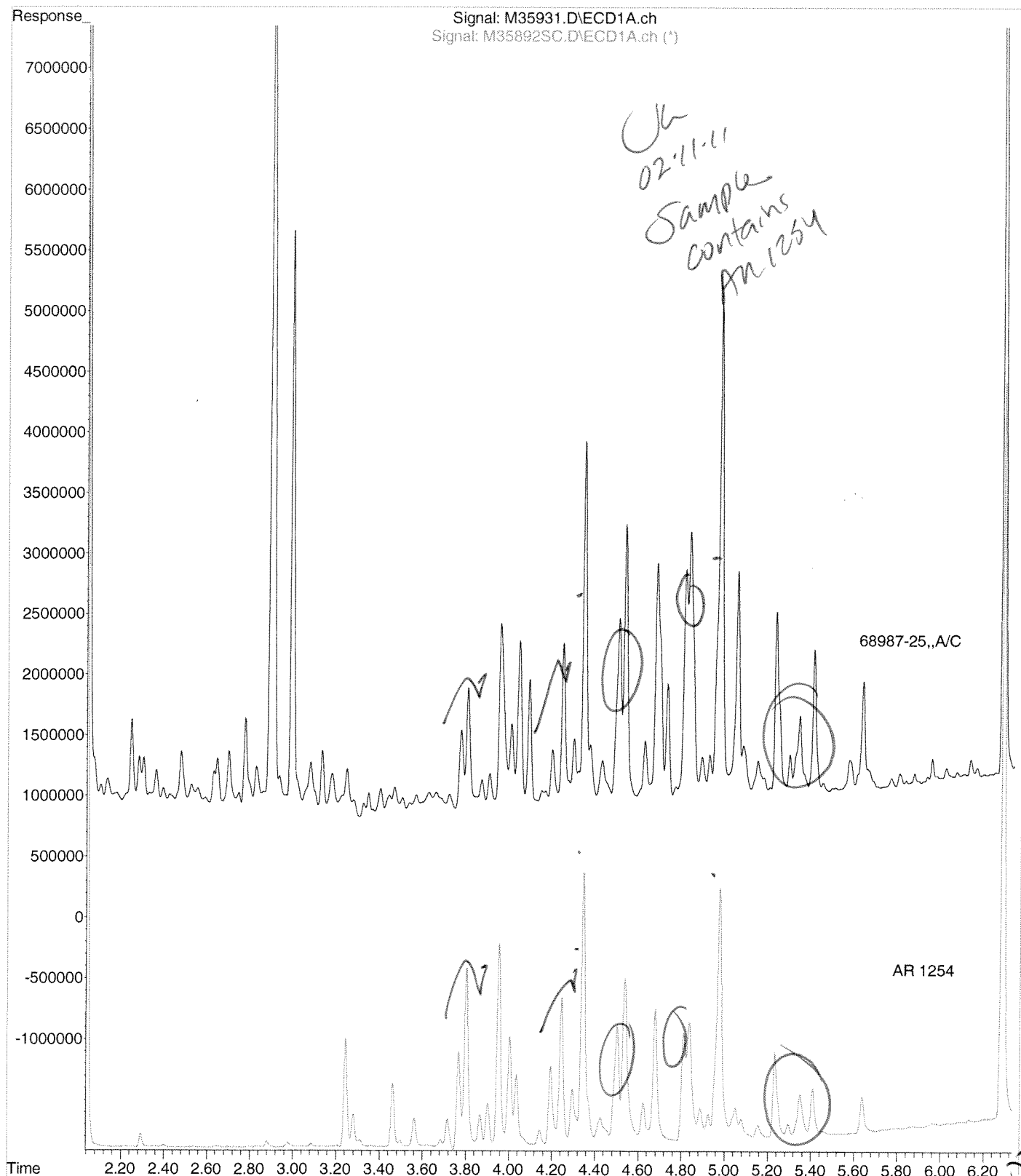
Data Path : C:\msdchem\1\DATA\021011-M\  
Data File : M35931.D  
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch  
Acq On : 10 Feb 2011 6:39 pm  
Operator : JK  
Sample : 68987-25,,A/C  
Misc : SOIL  
ALS Vial : 21 Sample Multiplier: 1

Integration File signal 1: events.e  
Integration File signal 2: events2.e  
Quant Time: Feb 11 09:00:46 2011  
Quant Method : C:\msdchem\1\METHODS\PCB020711.M  
Quant Title : SW-846 METHOD 8082 Aroclor 1016/1260/1254  
QLast Update : Mon Feb 07 15:22:15 2011  
Response via : Initial Calibration  
Integrator: ChemStation

Volume Inj. : 2 uL  
Signal #1 Phase : STX-CLPPesticides Signal #2 Phase: STX-CLPPesticides  
Signal #1 Info : 30 m x 0.25mm x 0 Signal #2 Info : 30 m x 0.25mm x 0.25 um



File :C:\msdchem\1\DATA\021011-M\M35931.D  
Operator : JK  
Acquired : 10 Feb 2011 6:39 pm using AcqMethod PEST.M  
Instrument : Instrument M  
Sample Name: 68987-25,,A/C  
Misc Info : SOIL  
Vial Number: 21



Ms. Amy Wallace  
Woodard & Curran  
41 Hutchins Drive  
Portland ME 04102

February 11, 2011

**SAMPLE DATA**

**CLIENT SAMPLE ID**

---

**Project Name:** USM Gorham  
**Project Number:** 224164  
**Field Sample ID:** UH-CBK-028

**Lab Sample ID:** 68987-26  
**Matrix:** Solid  
**Percent Solid:** 100  
**Dilution Factor:** 8  
**Collection Date:** 02/04/11  
**Lab Receipt Date:** 02/04/11  
**Extraction Date:** 02/07/11  
**Analysis Date:** 02/10/11

**PCB ANALYTICAL RESULTS**

COMPOUND	Quantitation Limit $\mu\text{g/kg}$	Results $\mu\text{g/kg}$
PCB-1016	260	U
PCB-1221	260	U
PCB-1232	260	U
PCB-1242	260	U
PCB-1248	260	U
PCB-1254	260	U
PCB-1260	260	<b>3900</b>
<b><u>Surrogate Standard Recovery</u></b>		
2,4,5,6-Tetrachloro-m-xylene	77	%
Decachlorobiphenyl	47	%
U=Undetected J=Estimated E=Exceeds Calibration Range B=Detected in		

METHODOLOGY: Sample analysis conducted according to Test Methods for Evaluating Solid Waste, SW-846 Method 8082.

Sample preparation conducted according to Test Methods for Evaluating Solid Waste, SW-846 Method 3540C.

COMMENTS: Results are expressed on a dry weight basis.

PCB  
COLUMN RELATIVE PERCENT DIFFERENCE

Instrument ID: M	SDG: 68987
GC Column #1: STX-CLPesticides I	Sample: 68987-26,,A/C
Column ID: 0.25 mm	Data File: M35943.D
GC Column #2: STX-CLPesticides II	Dilution Factor: 8.3
Column ID: 0.25 mm	

Column #1		Column #2	
COMPOUND	SAMPLE RESULT (ug/kg)	SAMPLE RESULT (ug/kg)	RPD #
PCB 1260	3896	3831	1.7

# Column to be used to flag RPD values greater than QC limit of 40%

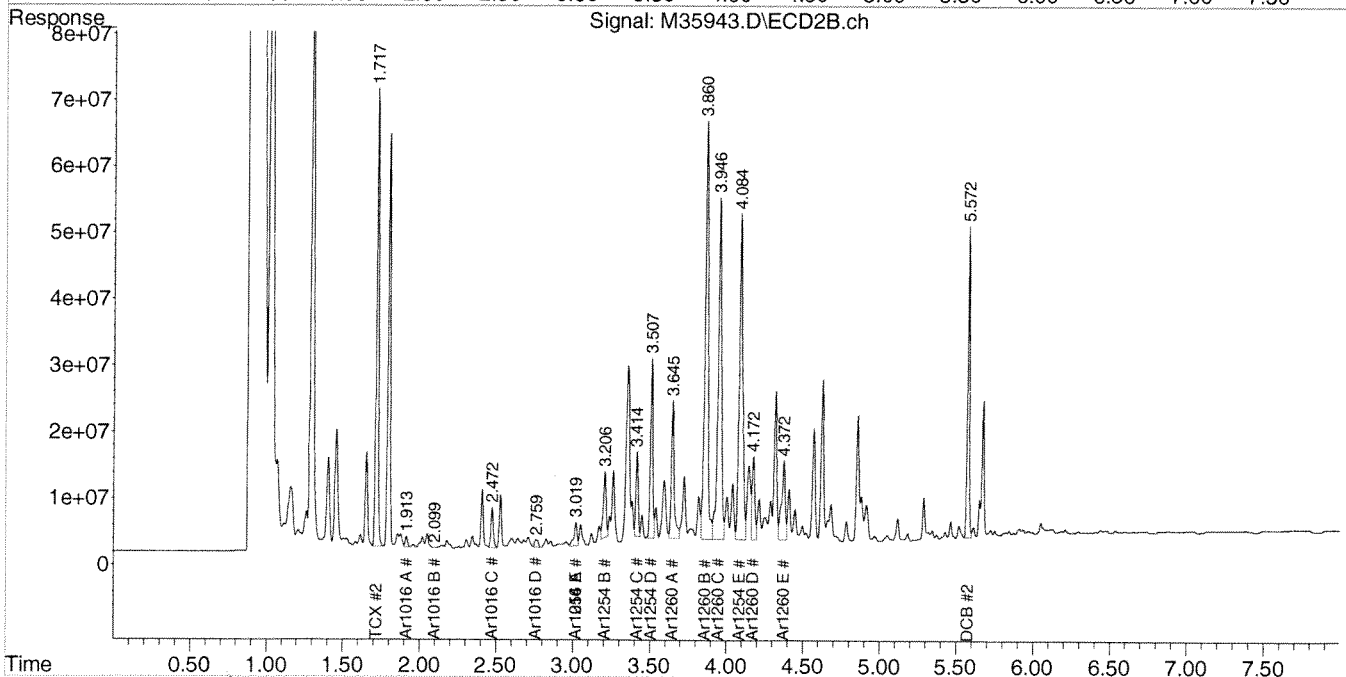
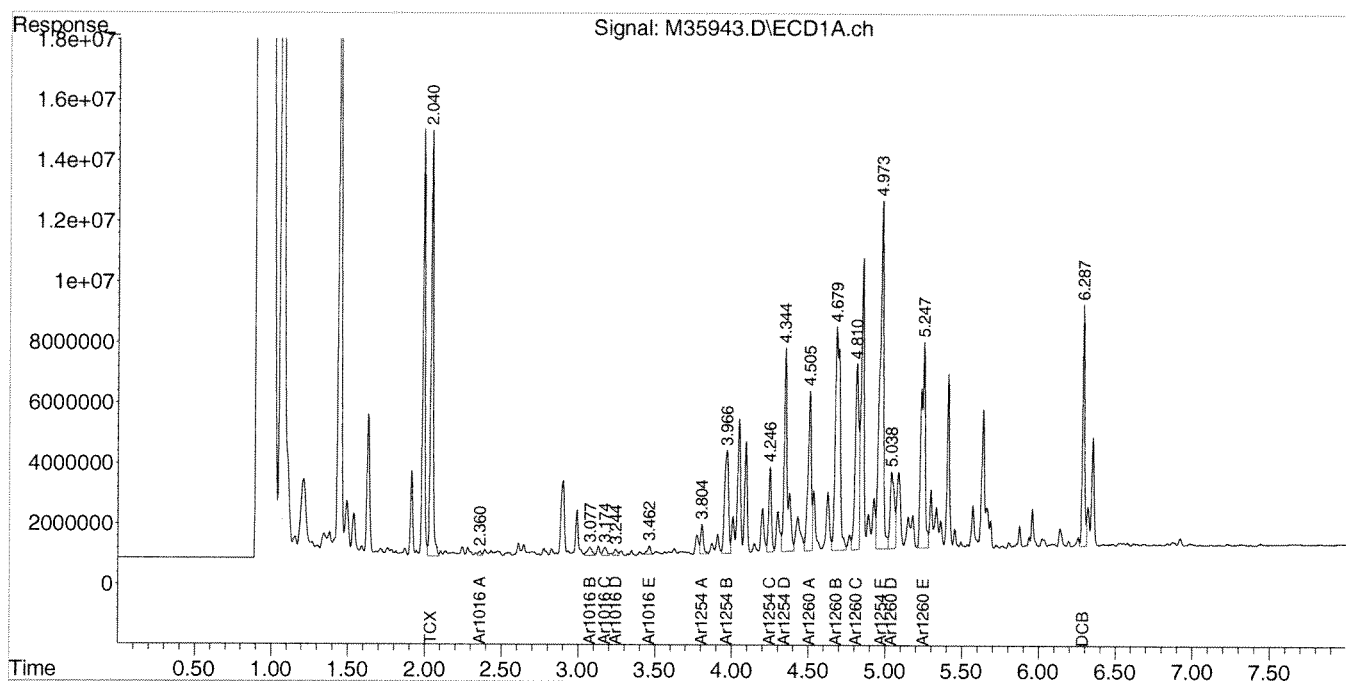
\* Values outside QC limits

Comments: \_\_\_\_\_

Data Path : C:\msdchem\1\DATA\021011-M\  
Data File : M35943.D  
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch  
Acq On : 10 Feb 2011 11:27 pm  
Operator : JK  
Sample : 68987-26,,A/C  
Misc : SOIL  
ALS Vial : 28 Sample Multiplier: 1

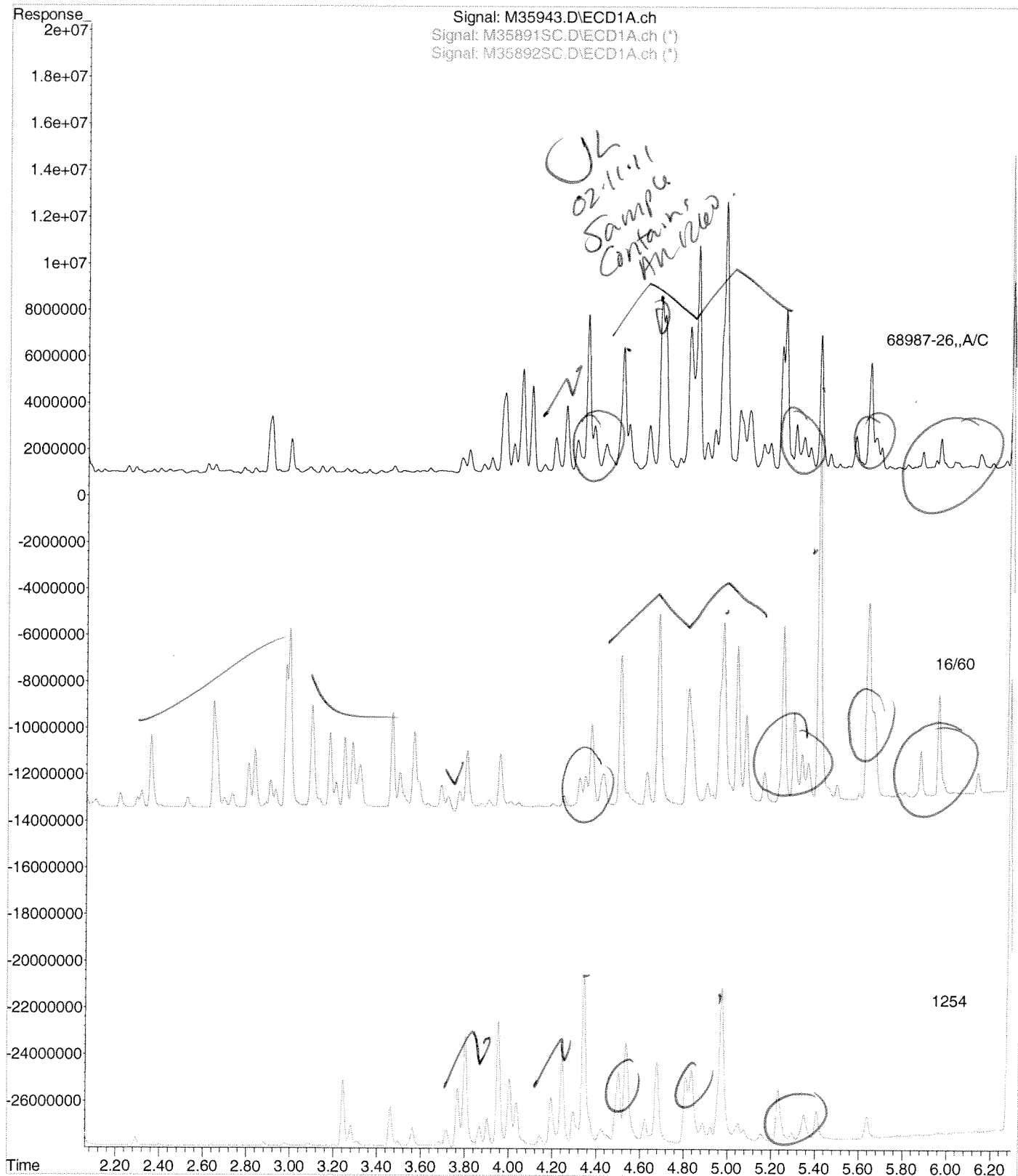
Integration File signal 1: events.e  
Integration File signal 2: events2.e  
Quant Time: Feb 11 01:56:51 2011  
Quant Method : C:\msdchem\1\METHODS\PCB020711.M  
Quant Title : SW-846 METHOD 8082 Aroclor 1016/1260/1254  
QLast Update : Mon Feb 07 15:22:15 2011  
Response via : Initial Calibration  
Integrator: ChemStation

Volume Inj. : 2 uL  
Signal #1 Phase : STX-CLPPesticides Signal #2 Phase: STX-CLPPesticides  
Signal #1 Info : 30 m x 0.25mm x 0 Signal #2 Info : 30 m x 0.25mm x 0.25 um





File :C:\msdchem\1\DATA\021011-M\M35943.D  
Operator : JK  
Acquired : 10 Feb 2011 11:27 pm using AcqMethod PEST.M  
Instrument : Instrument M  
Sample Name: 68987-26,,A/C  
Misc Info : SOIL  
Vial Number: 28



Ms. Amy Wallace  
Woodard & Curran  
41 Hutchins Drive  
Portland ME 04102

February 11, 2011

**SAMPLE DATA**

**CLIENT SAMPLE ID**  
**Project Name:** USM Gorham  
**Project Number:** 224164  
**Field Sample ID:** UH-CBK-029

**Lab Sample ID:** 68987-27  
**Matrix:** Solid  
**Percent Solid:** 99  
**Dilution Factor:** 9  
**Collection Date:** 02/04/11  
**Lab Receipt Date:** 02/04/11  
**Extraction Date:** 02/07/11  
**Analysis Date:** 02/10/11

**PCB ANALYTICAL RESULTS**

COMPOUND	Quantitation Limit $\mu\text{g/kg}$	Results $\mu\text{g/kg}$
PCB-1016	300	U
PCB-1221	300	U
PCB-1232	300	U
PCB-1242	300	U
PCB-1248	300	U
PCB-1254	300	U
PCB-1260	300	U

**Surrogate Standard Recovery**

2,4,5,6-Tetrachloro-m-xylene	85	%
Decachlorobiphenyl	54	%

U=Undetected J=Estimated E=Exceeds Calibration Range B=Detected in

METHODOLOGY: Sample analysis conducted according to Test Methods for Evaluating Solid Waste, SW-846 Method 8082.

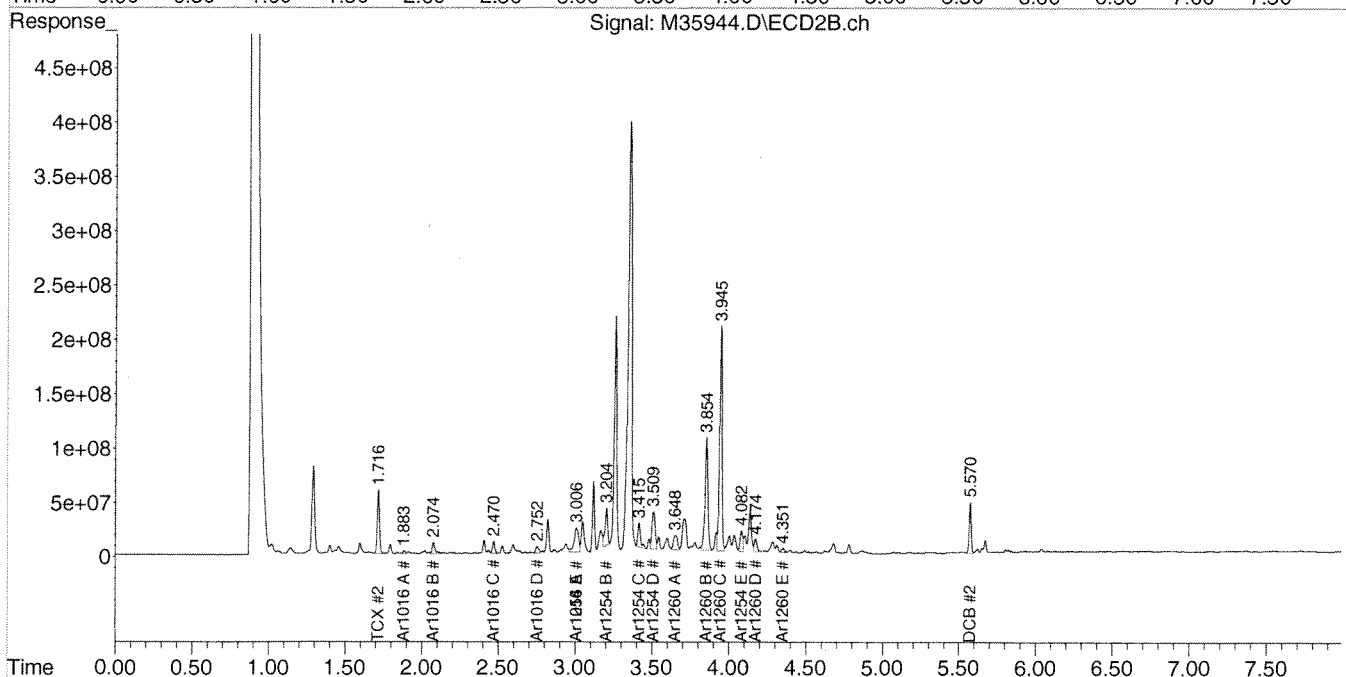
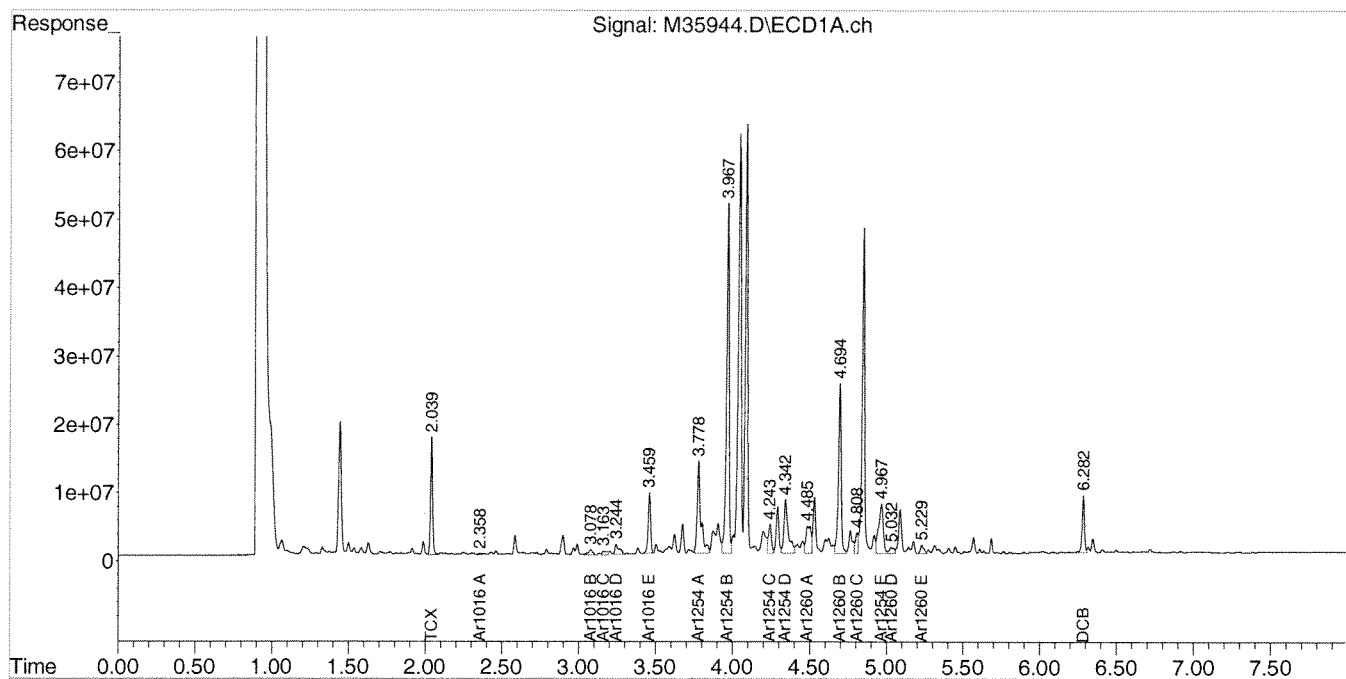
Sample preparation conducted according to Test Methods for Evaluating Solid Waste, SW-846 Method 3540C.

COMMENTS: Results are expressed on a dry weight basis.

Data Path : C:\msdchem\1\DATA\021011-M\  
Data File : M35944.D  
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch  
Acq On : 10 Feb 2011 11:37 pm  
Operator : JK  
Sample : 68987-27,,A/C  
Misc : SOIL  
ALS Vial : 29 Sample Multiplier: 1

Integration File signal 1: events.e  
Integration File signal 2: events2.e  
Quant Time: Feb 11 01:57:01 2011  
Quant Method : C:\msdchem\1\METHODS\PCB020711.M  
Quant Title : SW-846 METHOD 8082 Aroclor 1016/1260/1254  
QLast Update : Mon Feb 07 15:22:15 2011  
Response via : Initial Calibration  
Integrator: ChemStation

Volume Inj. : 2 uL  
Signal #1 Phase : STX-CLPPesticides Signal #2 Phase: STX-CLPPesticides  
Signal #1 Info : 30 m x 0.25mm x 0 Signal #2 Info : 30 m x 0.25mm x 0.25 um



Ms. Amy Wallace  
Woodard & Curran  
41 Hutchins Drive  
Portland ME 04102

February 11, 2011

**SAMPLE DATA**

**CLIENT SAMPLE ID**

**Project Name:** USM Gorham  
**Project Number:** 224164  
**Field Sample ID:** UH-CBK-030

**Lab Sample ID:** 68987-28  
**Matrix:** Solid  
**Percent Solid:** 99  
**Dilution Factor:** 9  
**Collection Date:** 02/04/11  
**Lab Receipt Date:** 02/04/11  
**Extraction Date:** 02/07/11  
**Analysis Date:** 02/10/11

**PCB ANALYTICAL RESULTS**

COMPOUND	Quantitation Limit $\mu\text{g/kg}$	Results $\mu\text{g/kg}$
PCB-1016	300	U
PCB-1221	300	U
PCB-1232	300	U
PCB-1242	300	U
PCB-1248	300	U
PCB-1254	300	<b>1230</b>
PCB-1260	300	U
<b><u>Surrogate Standard Recovery</u></b>		
2,4,5,6-Tetrachloro-m-xylene	72	%
Decachlorobiphenyl	50	%
U=Undetected J=Estimated E=Exceeds Calibration Range B=Detected in		

METHODOLOGY: Sample analysis conducted according to Test Methods for Evaluating Solid Waste, SW-846 Method 8082.

Sample preparation conducted according to Test Methods for Evaluating Solid Waste, SW-846 Method 3540C.

COMMENTS: Results are expressed on a dry weight basis.

PCB  
COLUMN RELATIVE PERCENT DIFFERENCE

Instrument ID: M	SDG: 68987
GC Column #1: STX-CLPesticides I	Sample: 68987-28,,A/C
Column ID: 0.25 mm	Data File: M35945.D
GC Column #2: STX-CLPesticides II	Dilution Factor: 9.0
Column ID: 0.25 mm	

Column #1		Column #2	
COMPOUND	SAMPLE RESULT (ug/kg)	SAMPLE RESULT (ug/kg)	RPD #
PCB 1254	1233	898	31.5

# Column to be used to flag RPD values greater than QC limit of 40%

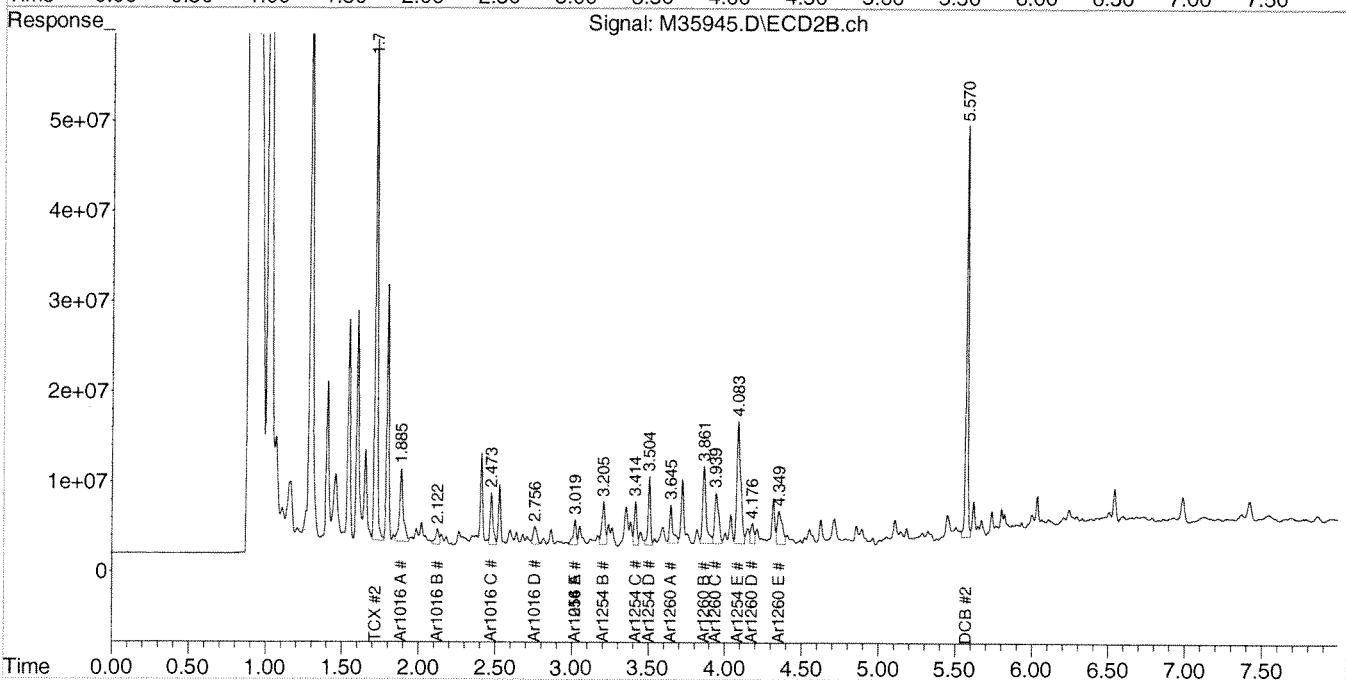
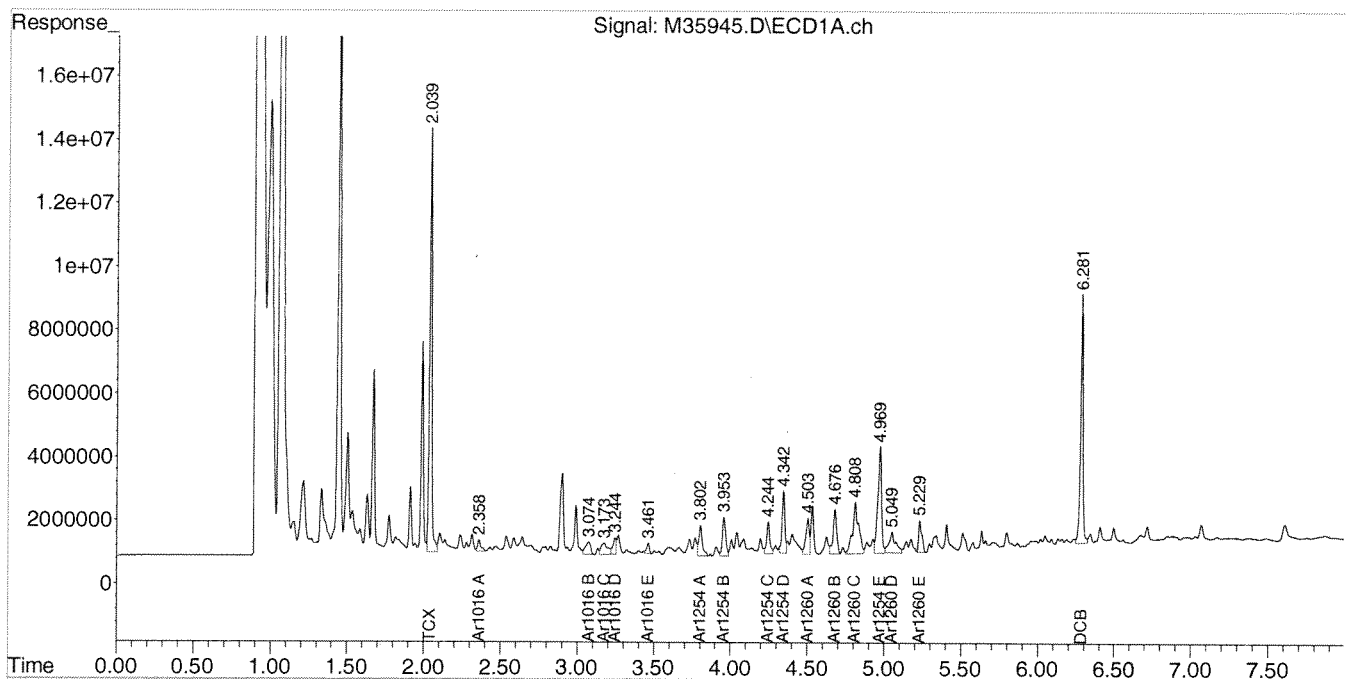
\* Values outside QC limits

Comments: \_\_\_\_\_

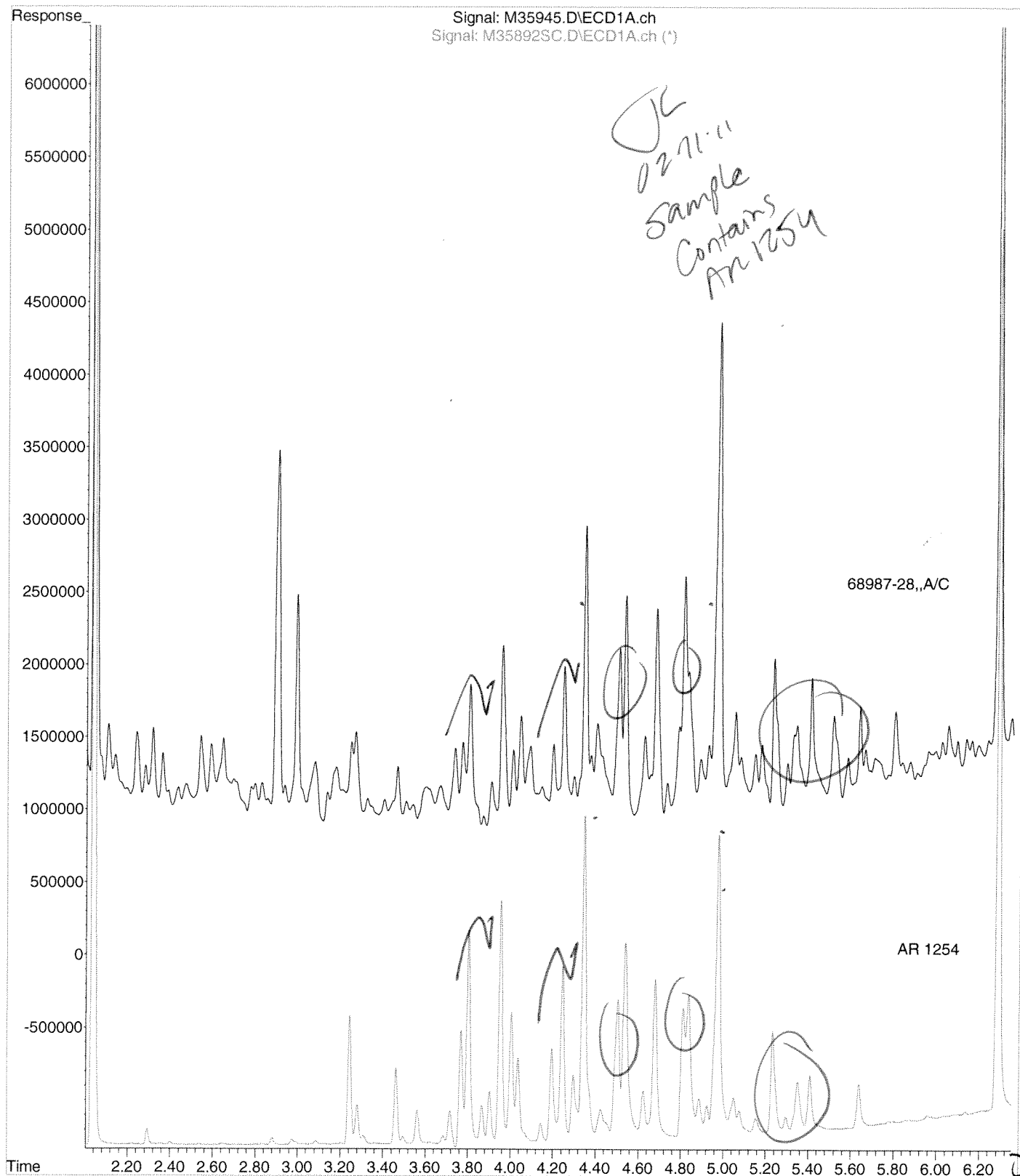
Data Path : C:\msdchem\1\DATA\021011-M\  
Data File : M35945.D  
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch  
Acq On : 10 Feb 2011 11:47 pm  
Operator : JK  
Sample : 68987-28,,A/C  
Misc : SOIL  
ALS Vial : 30 Sample Multiplier: 1

Integration File signal 1: events.e  
Integration File signal 2: events2.e  
Quant Time: Feb 11 09:27:37 2011  
Quant Method : C:\msdchem\1\METHODS\PCB020711.M  
Quant Title : SW-846 METHOD 8082 Aroclor 1016/1260/1254  
QLast Update : Mon Feb 07 15:22:15 2011  
Response via : Initial Calibration  
Integrator: ChemStation

Volume Inj. : 2 uL  
Signal #1 Phase : STX-CLPPesticides Signal #2 Phase: STX-CLPPesticides  
Signal #1 Info : 30 m x 0.25mm x 0 Signal #2 Info : 30 m x 0.25mm x 0.25 um



File :C:\msdchem\1\DATA\021011-M\M35945.D  
Operator : JK  
Acquired : 10 Feb 2011 11:47 pm using AcqMethod PEST.M  
Instrument : Instrument M  
Sample Name: 68987-28,,A/C  
Misc Info : SOIL  
Vial Number: 30



Ms. Amy Wallace  
Woodard & Curran  
41 Hutchins Drive  
Portland ME 04102

February 11, 2011

**SAMPLE DATA**

**CLIENT SAMPLE ID**  
**Project Name:** USM Gorham  
**Project Number:** 224164  
**Field Sample ID:** UH-CBKD-031

**Lab Sample ID:** 68987-29  
**Matrix:** Solid  
**Percent Solid:** 99  
**Dilution Factor:** 8  
**Collection Date:** 02/04/11  
**Lab Receipt Date:** 02/04/11  
**Extraction Date:** 02/07/11  
**Analysis Date:** 02/10/11

**PCB ANALYTICAL RESULTS**

COMPOUND	Quantitation Limit $\mu\text{g/kg}$	Results $\mu\text{g/kg}$
PCB-1016	260	U
PCB-1221	260	U
PCB-1232	260	U
PCB-1242	260	U
PCB-1248	260	U
PCB-1254	260	U
PCB-1260	260	U

**Surrogate Standard Recovery**

2,4,5,6-Tetrachloro-m-xylene	76	%
Decachlorobiphenyl	53	%

U=Undetected J=Estimated E=Exceeds Calibration Range B=Detected in

METHODOLOGY: Sample analysis conducted according to Test Methods for Evaluating Solid Waste, SW-846 Method 8082.

Sample preparation conducted according to Test Methods for Evaluating Solid Waste, SW-846 Method 3540C.

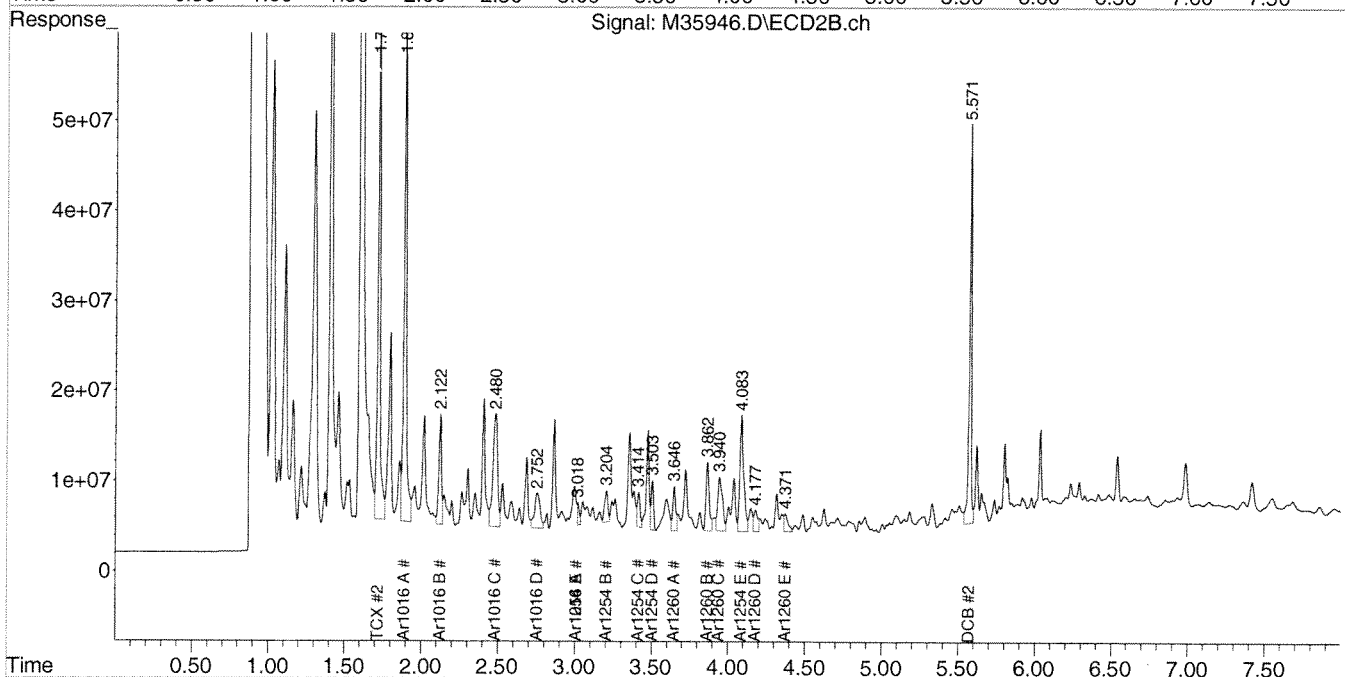
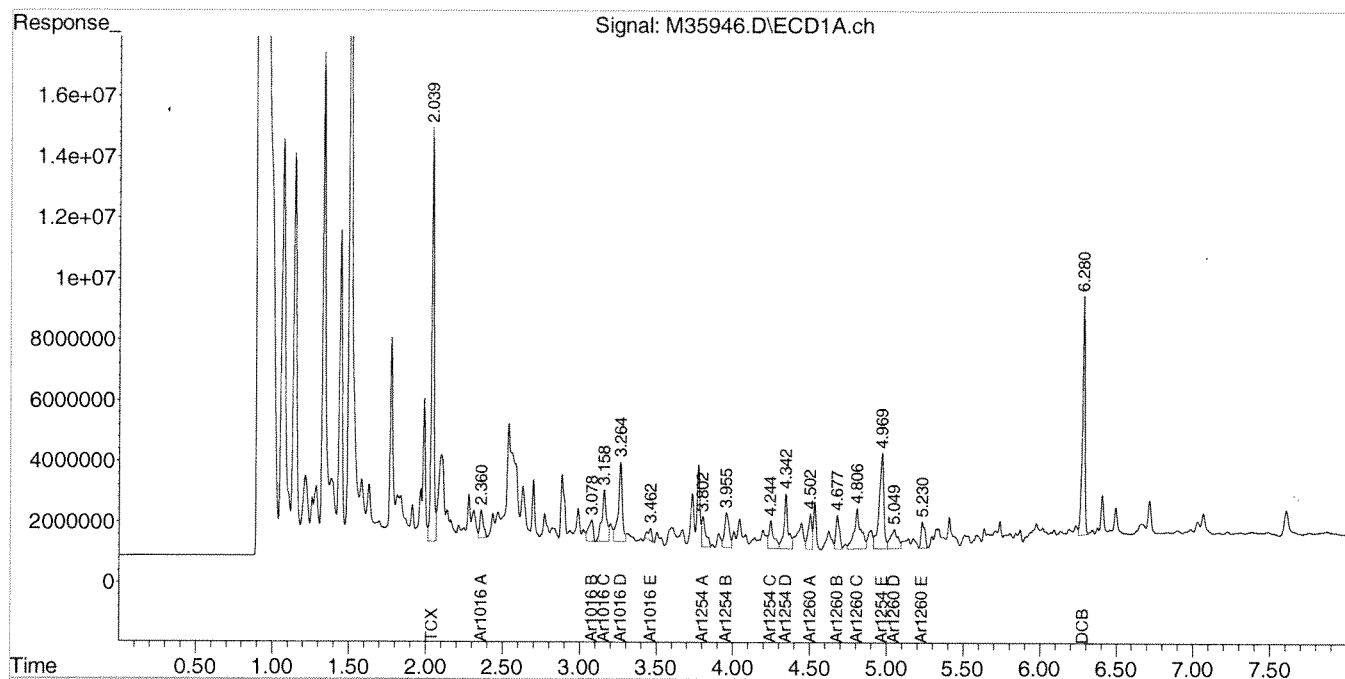
COMMENTS: Results are expressed on a dry weight basis.



Data Path : C:\msdchem\1\DATA\021011-M\  
Data File : M35946.D  
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch  
Acq On : 10 Feb 2011 11:57 pm  
Operator : JK  
Sample : 68987-29,,A/C  
Misc : SOIL  
ALS Vial : 31 Sample Multiplier: 1

Integration File signal 1: events.e  
Integration File signal 2: events2.e  
Quant Time: Feb 11 01:57:20 2011  
Quant Method : C:\msdchem\1\METHODS\PCB020711.M  
Quant Title : SW-846 METHOD 8082 Aroclor 1016/1260/1254  
QLast Update : Mon Feb 07 15:22:15 2011  
Response via : Initial Calibration  
Integrator: ChemStation

Volume Inj. : 2 uL  
Signal #1 Phase : STX-CLPPesticides Signal #2 Phase: STX-CLPPesticides  
Signal #1 Info : 30 m x 0.25mm x 0 Signal #2 Info : 30 m x 0.25mm x 0.25 um



Ms. Amy Wallace  
Woodard & Curran  
41 Hutchins Drive  
Portland ME 04102

February 11, 2011

**SAMPLE DATA**

**CLIENT SAMPLE ID**  
**Project Name:** USM Gorham  
**Project Number:** 224164  
**Field Sample ID:** UH-CBK-032

**Lab Sample ID:** 68987-30  
**Matrix:** Solid  
**Percent Solid:** 99  
**Dilution Factor:** 10  
**Collection Date:** 02/04/11  
**Lab Receipt Date:** 02/04/11  
**Extraction Date:** 02/07/11  
**Analysis Date:** 02/11/11

**PCB ANALYTICAL RESULTS**

COMPOUND	Quantitation Limit $\mu\text{g/kg}$	Results $\mu\text{g/kg}$
PCB-1016	330	U
PCB-1221	330	U
PCB-1232	330	U
PCB-1242	330	U
PCB-1248	330	U
PCB-1254	330	<b>819</b>
PCB-1260	330	U
<b><u>Surrogate Standard Recovery</u></b>		
2,4,5,6-Tetrachloro-m-xylene	86	%
Decachlorobiphenyl	49	%
U=Undetected J=Estimated E=Exceeds Calibration Range B=Detected in		

METHODOLOGY: Sample analysis conducted according to Test Methods for Evaluating Solid Waste, SW-846 Method 8082.

Sample preparation conducted according to Test Methods for Evaluating Solid Waste, SW-846 Method 3540C.

COMMENTS: Results are expressed on a dry weight basis.

PCB  
COLUMN RELATIVE PERCENT DIFFERENCE

Instrument ID: M	SDG: 68987
GC Column #1: STX-CLPesticides I	Sample: 68987-30,,A/C
Column ID: 0.25 mm	Data File: M35947.D
GC Column #2: STX-CLPesticides II	Dilution Factor: 9.5
Column ID: 0.25 mm	

Column #1		Column #2		#
COMPOUND	SAMPLE RESULT (ug/kg)	SAMPLE RESULT (ug/kg)	RPD	
PCB 1254	819	602	30.6	

# Column to be used to flag RPD values greater than QC limit of 40%

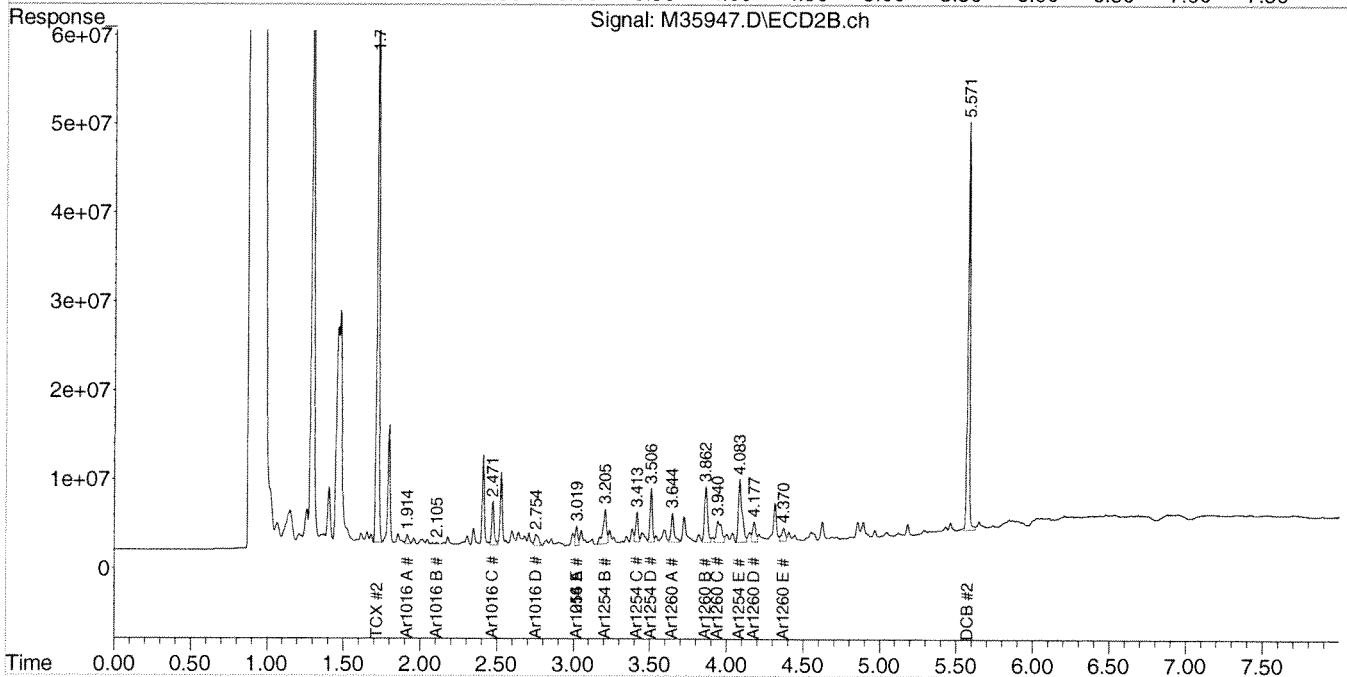
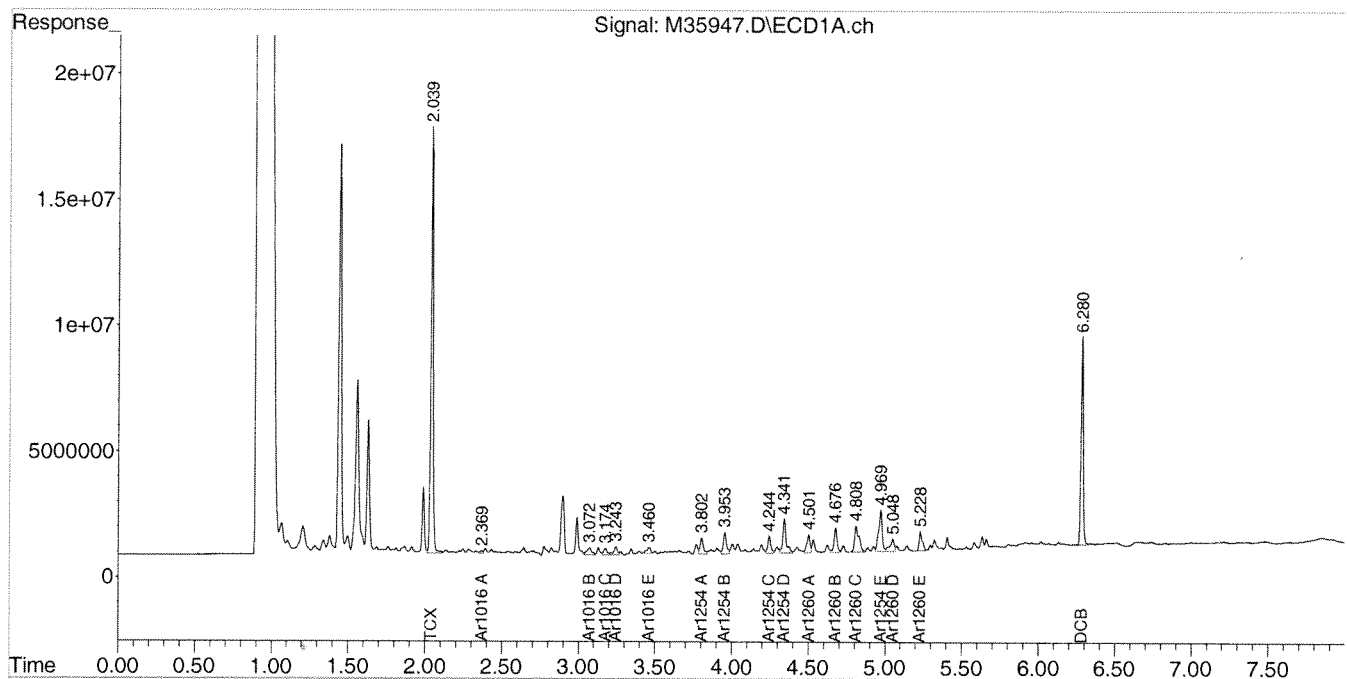
\* Values outside QC limits

Comments: \_\_\_\_\_

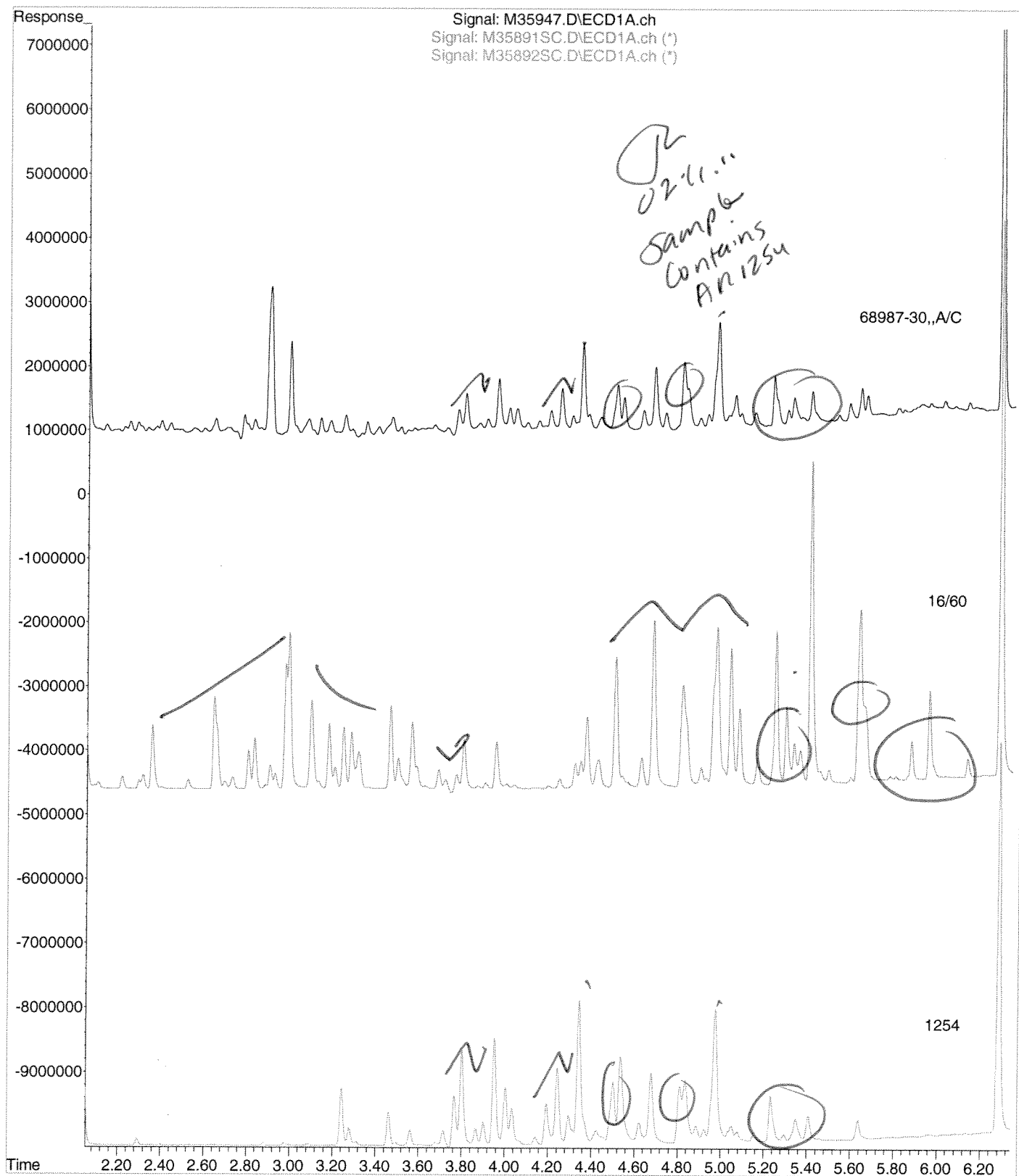
Data Path : C:\msdchem\1\DATA\021011-M\  
 Data File : M35947.D  
 Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch  
 Acq On : 11 Feb 2011 12:08 am  
 Operator : JK  
 Sample : 68987-30,,A/C  
 Misc : SOIL  
 ALS Vial : 32 Sample Multiplier: 1

Integration File signal 1: events.e  
 Integration File signal 2: events2.e  
 Quant Time: Feb 11 01:57:27 2011  
 Quant Method : C:\msdchem\1\METHODS\PCB020711.M  
 Quant Title : SW-846 METHOD 8082 Aroclor 1016/1260/1254  
 QLast Update : Mon Feb 07 15:22:15 2011  
 Response via : Initial Calibration  
 Integrator: ChemStation

Volume Inj. : 2 uL  
 Signal #1 Phase : STX-CLPPesticides Signal #2 Phase: STX-CLPPesticides  
 Signal #1 Info : 30 m x 0.25mm x 0 Signal #2 Info : 30 m x 0.25mm x 0.25 um



File :C:\msdchem\1\DATA\021011-M\M35947.D  
Operator : JK  
Acquired : 11 Feb 2011 12:08 am using AcqMethod PEST.M  
Instrument : Instrument M  
Sample Name: 68987-30,,A/C  
Misc Info : SOIL  
Vial Number: 32



## PCB QC FORMS







Instrument ID: L  
GC Column #1: STX-CLPesticides I  
Column ID: 0.25 mm  
GC Column #2: STX-CLPesticides II  
Column ID: 0.25 mm

[illegible]

# Column to be used to flag recovery values outside of QC limits  
\* Values outside QC limits  
D System Monitoring Compound diluted out

# PCB SOIL SYSTEM MONITORING COMPOUNDS SUMMARY

Instrument ID: M  
GC Column #1: STX-CLPesticides I  
Column ID: 0.25 mm  
GC Column #2: STX-CLPesticides II  
Column ID: 0.25 mm

SDG: 68987

[illegible]

	Lower Limit	Upper Limit
SMC #1 = TCX	40	130
SMC #2 = DCB	40	130

# Column to be used to flag recovery values outside of QC limits  
\* Values outside QC limits  
D System Monitoring Compound diluted out

# PCB SOIL SYSTEM MONITORING COMPOUNDS SUMMARY

Instrument ID: M

GC Column #1: STX-CLPesticides I

SDG: 68987

Column ID: 0.25 mm

GC Column #2: STX-CLPesticides II

Column ID: 0.25 mm

[illegible]

	Lower Limit	Upper Limit
SMC #1 = TCX	40	130
SMC #2 = DCB	40	130

# Column to be used to flag recovery values outside of QC limits

\* Values outside QC limits

D System Monitoring Compound diluted out





PCB WIPE  
LABORATORY CONTROL SAMPLE/DUPLICATE  
PERCENT RECOVERY

Instrument ID: M

GC Column #1: STX-CLPesticides I

Column ID: 0.25 mm

GC Column #2: STX-CLPesticides II

Column ID: 0.25 mm

SDG: 68987

Non-spiked sample: B020411PSOX2,,A/C

Spike: L020411PSOXW,,A/C

Spike duplicate: LD020411PSOXW,,A/C

COMPOUND	LCS SPIKE	LCSD SPIKE	LOWER	UPPER	RPD	NON-SPIKE	SPIKE		SPIKE DUP		SPIKE DUP		RPD	
	ADDED (ug/wipe)	ADDED (ug/wipe)	LIMIT	LIMIT	LIMIT	RESULT (ug/wipe)	RESULT (ug/wipe)	% REC	#	RESULT (ug/wipe)	% REC	#	RPD	#
PCB 1016	2.0	2.0	65	140	30	0	2.0	100		2.1	103		3.5	
PCB 1260	2.0	2.0	60	130	30	0	1.8	91		1.8	92		0.3	
PCB 1016 #2	2.0	2.0	65	140	30	0	1.9	94		1.8	91		2.9	
PCB 1260 #2	2.0	2.0	60	130	30	0	1.9	96		1.9	93		2.9	

# Column to be used to flag recovery and RPD values outside of QC limits

\* Values outside QC limits

LCS/LCSD spike added values have been weight adjusted.

Non-spike result of "0" used in place of "U" to allow calculation of spike recovery.

Comments: \_\_\_\_\_  
\_\_\_\_\_

PCB SOIL  
LABORATORY CONTROL SAMPLE/DUPLICATE  
PERCENT RECOVERY

Instrument ID: M

GC Column #1: STX-CLPesticides I

Column ID: 0.25 mm

GC Column #2: STX-CLPesticides II

Column ID: 0.25 mm

SDG: 68987

Non-spiked sample: B020711PSOX,,A/C

Spike: L020711PSOX,,A/C

Spike duplicate: LD020711PSOX,,A/C

	LCS SPIKE	LCSD SPIKE	LOWER	UPPER	RPD	NON-SPIKE	SPIKE	SPIKE		SPIKE DUP		SPIKE DUP			
COMPOUND	ADDED (ug/kg)	ADDED (ug/kg)	LIMIT	LIMIT	LIMIT	RESULT (ug/kg)	RESULT (ug/kg)	% REC	#	RESULT (ug/kg)	% REC	#	RPD	#	
PCB 1016	200	200	65	140	30	0	221	110		221	110		0.2		
PCB 1260	200	200	60	130	30	0	192	96		198	99		3.4		
PCB 1016 #2	200	200	65	140	30	0	212	106		230	115		8.0		
PCB 1260 #2	200	200	60	130	30	0	206	103		207	104		0.7		

# Column to be used to flag recovery and RPD values outside of QC limits

\* Values outside QC limits

LCS/LCSD spike added values have been weight adjusted.

Non-spike result of "0" used in place of "U" to allow calculation of spike recovery.

Comments: \_\_\_\_\_  
\_\_\_\_\_

PCB AQUEOUS  
LABORATORY CONTROL SAMPLE/DUPLICATE  
PERCENT RECOVERY

Instrument ID: M

GC Column #1: STX-CLPesticides I

Column ID: 0.25 mm

GC Column #2: STX-CLPesticides II

Column ID: 0.25 mm

SDG: 68987

Non-spiked sample: B020711PW

Spike: L020711PWB

Spike duplicate: LD020711PWB

	LCS SPIKE	LCSD SPIKE	LOWER	UPPER	RPD	NON-SPIKE	SPIKE	SPIKE		SPIKE DUP		SPIKE DUP			
COMPOUND	ADDED (ug/L)	ADDED (ug/L)	LIMIT	LIMIT	LIMIT	RESULT (ug/L)	RESULT (ug/L)	% REC	#	RESULT (ug/L)	% REC	#	RPD	#	
PCB 1016	2.00	2.00	65	140	30	0	1.62	81		1.64	82		1.4		
PCB 1260	2.00	2.00	60	130	30	0	1.62	81		1.64	82		1.2		
PCB 1016 #2	2.00	2.00	65	140	30	0	1.73	86		1.79	90		3.8		
PCB 1260 #2	2.00	2.00	60	130	30	0	1.78	89		1.93	96		7.9		

# Column to be used to flag recovery and RPD values outside of QC limits

\* Values outside QC limits

LCS/LCSD spike added values have been weight adjusted.

Non-spiked result of "0" used in place of "U" to allow calculation of spike recovery.

Comments: \_\_\_\_\_  
\_\_\_\_\_



PCB SOIL  
LABORATORY CONTROL SAMPLE/DUPLICATE  
PERCENT RECOVERY

Instrument ID: M

GC Column #1: STX-CLPesticides I

Column ID: 0.25 mm

GC Column #2: STX-CLPesticides II

Column ID: 0.25 mm

SDG: 68987

Non-spiked sample: B020411PSOX2,,A/C

Spike: L020411PSOX2,,A/C

Spike duplicate: LD020411PSOX2,,A/C

	LCS SPIKE	LCSD SPIKE	LOWER	UPPER	RPD	NON-SPIKE	SPIKE	SPIKE		SPIKE DUP		SPIKE DUP			
COMPOUND	ADDED (ug/kg)	ADDED (ug/kg)	LIMIT	LIMIT	LIMIT	RESULT (ug/kg)	RESULT (ug/kg)	% REC	#	RESULT (ug/kg)	% REC	#	RPD	#	
PCB 1016	200	200	65	140	30	0	193	97		199	99		2.9		
PCB 1260	200	200	60	130	30	0	187	93		191	96		2.5		
PCB 1016 #2	200	200	65	140	30	0	161	81		165	82		2.4		
PCB 1260 #2	200	200	60	130	30	0	199	99		208	104		4.5		

# Column to be used to flag recovery and RPD values outside of QC limits

\* Values outside QC limits

LCS/LCSD spike added values have been weight adjusted.

Non-spiked result of "0" used in place of "U" to allow calculation of spike recovery.

Comments: \_\_\_\_\_  
\_\_\_\_\_

PCB SOIL  
LABORATORY CONTROL SAMPLE/DUPLICATE  
PERCENT RECOVERY

Instrument ID: **L**

GC Column #1: STX-CLPesticides I

Column ID: 0.25 mm

GC Column #2: STX-CLPesticides II

Column ID: 0.25 mm

SDG: 68987

Non-spiked sample: B020711PSOX,,A/C

Spike: L020711PSOX,,A/C

Spike duplicate: LD020711PSOX,,A/C

	LCS SPIKE	LCSD SPIKE	LOWER	UPPER	RPD	NON-SPIKE	SPIKE	SPIKE		SPIKE DUP		SPIKE DUP			
COMPOUND	ADDED (ug/kg)	ADDED (ug/kg)	LIMIT	LIMIT	LIMIT	RESULT (ug/kg)	RESULT (ug/kg)	% REC	#	RESULT (ug/kg)	% REC	#	RPD	#	
PCB 1016	200	200	65	140	30	0	215	108		218	109		1.2		
PCB 1260	200	200	60	130	30	0	189	95		194	97		2.5		
PCB 1016 #2	200	200	65	140	30	0	196	98		215	107		8.9		
PCB 1260 #2	200	200	60	130	30	0	196	98		200	100		1.7		

# Column to be used to flag recovery and RPD values outside of QC limits

\* Values outside QC limits

LCS/LCSD spike added values have been weight adjusted.

Non-spike result of "0" used in place of "U" to allow calculation of spike recovery.

Comments: \_\_\_\_\_  
\_\_\_\_\_

## CHAIN OF CUSTODIES

# Chain Of Custody Form

<b>analytical environmental laboratory LLC</b> 195 Commerce Way Suite E Portsmouth, NH 03801 Phone (603) 436-5111 Fax (603) 430-2151		For Analytics Use Only Rev. 5/06/18/08	
Project#: 224164 Proj. Name: USM Gorham Company: Woodard + Curran Contact: Amy Wallace Address: 41 Hutchins Dr Portland ME 04101		Matrix Key: C = Concrete WP = Waste WW = Wastewater SW = Surface Water GW = Groundwater DW = Drinking Water S = Soil/Sludge O = Oil E = Extract X = Other	
Phone: 800-426-4862 PO# Sampler (Signature): Amy Wall		Quote # Skemail 1/11/11	
Station Identification	Sample Date	Sample Time	Analysis
AH-CBK-001	2/3/11	11:05	PCB
AH-CBK-002		11:20	
AH-CBK-003		11:30	
AH-CBK-004		12:35	
AH-CBK-006		12:50	
AH-CWM-008		11:45	
AH-CWM-009		12:05	
AH-CBK-010		13:10	
AH-CBK-011		13:50	
UH-CBK-012		14:10	
UH-CBK-013		14:10	
Email Results to: amy.wallace@woodardcurran.com		Comments / Instructions: Soxhlet/8082 Cooler #106 AH-CBK-011 + UH-CBK-013 both tested Neg for CI- using 10 paper. Int 2.4.11	
Turnaround Time (TAT) <input type="checkbox"/> 24hr* <input type="checkbox"/> 48hr* <input checked="" type="checkbox"/> 5 Days* <input type="checkbox"/> 10 Days		Project Requirements: *Fee may apply	
Report Type: <input type="checkbox"/> MCP* <input checked="" type="checkbox"/> Level II* <input type="checkbox"/> TRCP* <input type="checkbox"/> Level III* <input type="checkbox"/> DOD* <input type="checkbox"/> Level IV* <input type="checkbox"/> Standard		State: <input type="checkbox"/> NH <input type="checkbox"/> MA <input checked="" type="checkbox"/> ME <input type="checkbox"/> CT <input type="checkbox"/> RI	
State Standard: (eg. S-1 or GW-1)		EDD Required: Y* N	
Type: PDF		Relinquished By Sampler: Amy Wall Date: 2/4/11 Time: 10:00 Relinquished By: [Signature] Date: 2/4/11 Time: 10:42 Relinquished By: [Signature] Date: 2/4/11 Time: 11:42	

# Chain Of Custody Form

<b>analytics environmental laboratory LLC</b> 195 Commerce Way Suite E Portsmouth, NH 03801 Phone (603) 436-5111 Fax (603) 430-2151		For Analytics Use Only Rev. 5/06/18/08	
Project#: 224164 Proj. Name: USM Gorham Company: Woodward & Curran Contact: Amy Wallace Address: 41 Hutchins Drive Portland, ME Phone: (207) 774-2112 PO# Quote #		Samples were: 1) Shipped or hand-delivered 2) Temp blank °C 4°C 3) Received in good condition Y or N 4) pH checked by: N/A 5) Labels checked by: Amy Wallace 2.4.11	
Matrix Key: C = Concrete WP = Wipe WW = Wastewater SW = Surface Water GW = Groundwater DW = Drinking Water S = Soil/Sludge O = Oil E = Extract X = Other		Container Key P=plastic G=glass	
Preservation Unpres <input checked="" type="checkbox"/> 4° C <input checked="" type="checkbox"/> HNO <sub>3</sub> <input checked="" type="checkbox"/> H <sub>2</sub> SO <sub>4</sub> <input checked="" type="checkbox"/> HCL <input checked="" type="checkbox"/> Methanol <input checked="" type="checkbox"/> Other		pH Analytix Sample # 68987 -12 -13 -14 -15 -16 -17 -18 -19 -20 -21 -22	
Station Identification UH-CBB-014 UH-CBB-015 UH-CBC-016 UH-CBK-017 UH-CBB-018 UH-CBK-019 UH-CBK-020 UH-CBK-021 UH-CBK-022 UH-CBK-023 UH-CBK-024		Sample Date 2/3/11 1/3/5 1/4/5 1/4/5 1/5/5 1/5/5 1/6/0 1/6/0 1/6/5 1/6/5	
Sample Time 1430 1435 1445 1450 1505 1545 1555 1600 1620 1625 1635		Analysis PCB ↓	
Comments / Instructions: cooler # 106		Project Requirements: *Fee may apply Report Type: MCP* <input type="checkbox"/> Level II* TRCP* <input type="checkbox"/> Level III* DOD* <input type="checkbox"/> Level IV* <input type="checkbox"/> Standard State: NH <input type="checkbox"/> MA <input type="checkbox"/> ME <input type="checkbox"/> CT <input type="checkbox"/> RI <input type="checkbox"/> Other: State Standard: (eg. S-1 or GW-1) EDD Required: Y* N Type:	
Email Results to:		Relinquished By Sampler: Amy Wallace Relinquished By: Cold Storage Date: 2/4/11 Time: 10:00 Relinquished By: Cold Storage Date: 2/4/11 Time: 10:00	

# Chain Of Custody Form

<b>analytics environmental laboratory LLC</b> 195 Commerce Way Suite E. Portsmouth, NH 03801 Phone (603) 436-5111 Fax (603) 430-2151		For Analytics Use Only Rev. 5/06/18/08	
Project#: 224164 Proj. Name: USM 60rham Company: Woodard & Curran Contact: Amy Wallace Address: 41 Hutchins Drive Portland, ME		Samples were: 1) Shipped or hand-delivered <u>4°C</u> 2) Temp blank <u>6</u> 3) Received in good condition <u>Y</u> or <u>N</u> 4) pH checked by: <u>N/A</u> 5) Labels checked by: <u>mt 2.4.11</u>	
Phone: (207)774-2112 PO# Quote # Sampler (Signature): <u>Amy Wallace</u>		Container Key P=plastic G=glass Matrix number/type Matrix Other	
Station Identification Sample Date Sample Time Analysis		Preservation Unpres 4°C HNO <sub>3</sub> H <sub>2</sub> SO <sub>4</sub> HCL Methanol	
UH-CBK-025 UH-CBK-026 UH-CBK-027 UH-CBK-028 UH-CBK-029 UH-CBK-030 UH-CBK-031 UH-CBK-032 UH-CBK-033		2/3/11 16:40 PCB 2/3/11 16:50 2/3/11 17:00 2/4/11 8:50 2/4 9:00 2/4 9:10 2/4 9:15 2/4 9:20 ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓	
Email Results to:		Project Requirements: *Fee may apply Report Type: MCP* <input type="checkbox"/> Level II* TRCP* <input type="checkbox"/> Level III* DOD* <input type="checkbox"/> Level IV* <input type="checkbox"/> Standard State: NH <input type="checkbox"/> MA <input type="checkbox"/> ME <input type="checkbox"/> CT <input type="checkbox"/> RI Other:	
Turnaround Time (TAT) <input type="checkbox"/> 24hr* <input type="checkbox"/> 48hr* <input type="checkbox"/> 72hr* <input type="checkbox"/> 5 Days* <input type="checkbox"/> 10 Days		Relinquished By Sampler: <u>Amy Wallace</u> Date: <u>2/4/11</u> Time: <u>10:00</u> Relinquished By: <u>Gold Storage</u> Date: <u>2/4/11</u> Time: <u>10:12</u> Relinquished By: <u>COB Storage</u> Date: <u>2/4/11</u> Time: <u>10:12</u>	

ANALYTICS SAMPLE RECEIPT CHECKLIST

AEL LAB#: 68987  
 CLIENT: Woodward + Curran  
 PROJECT: USM Gorham

COOLER NUMBER: 106  
 NUMBER OF COOLERS: 1  
 DATE RECEIVED: 2.4.11

**A: PRELIMINARY EXAMINATION:**

DATE COOLER OPENED: 2.4.11  
 Date Received: 2.4.11

1. Cooler received by (initials): JG

2. Circle one:

Hand delivered  
 (if so, skip 3)

Shipped

3. Did cooler come with a shipping slip?

Y

N

NA

3a. Enter carrier name and airbill number here:

4. Were custody seals on the outside of cooler?

Y

N

NA

How many & where:

Seal Date:

Seal Name:

5. Did the custody seals arrive unbroken and intact upon arrival?

Y

N

NA

6. COC#:

N/A

7. Were Custody papers filled out properly (ink, signed, etc)?

Y

N

8. Were custody papers sealed in a plastic bag?

Y

N

9. Did you sign the COC in the appropriate place?

Y

N

10. Was the project identifiable from the COC papers?

Y

N

11. Was enough ice used to chill the cooler?

Y

N

Temp. of cooler:

4°C

**B. Log-In:** Date samples were logged in:

2.4.11

By:

JG

12. Type of packing in cooler (bubble wrap, popcorn)

Y

N

13. Were all bottles sealed in separate plastic bags?

Y

N

14. Did all bottles arrive unbroken and were labels in good condition?

Y

N

15. Were all bottle labels complete (ID, Date, time, etc.)

Y

N

\*Sample container labels do not have date

16. Did all bottle labels agree with custody papers?

Y

N

17. Were the correct containers used for the tests indicated?

Y

N

18. Were samples received at the correct pH?

Y

N/A

19. Was sufficient amount of sample sent for the tests indicated?

Y

N

20. Were all samples submitted within holding time?

Y

N

21. Were bubbles absent in VOA samples?

Y

N/A

If NO, List Sample ID's and Lab #s:

22. Laboratory labeling verified by (initials):

Int

Date:

2.4.11

February 18, 2011

Ms. Amy Wallace  
Woodard & Curran  
35 NE Business Center Suite 180  
Andover MA 01810

**RE: Analytical Results Case Narrative  
Analytics # 69043  
USM Gorham Project No: 224164**

Dear Ms. Wallace;

Enclosed please find the analytical results for samples submitted for the above-mentioned project. The attached Cover Page lists the sample IDs, Lab tracking numbers and collection dates for the samples included in this deliverable.

Samples were analyzed Polychlorinated Biphenyls (PCBs) by EPA Method 8082.

Unless otherwise noted in the Non-conformance Summary listed below, all of the quality control (QC) criteria including initial calibration, calibration verification, surrogate recovery, holding time and method accuracy/precision for these analyses were within acceptable limits.

This Level II data package has been assembled in the following order:

- Case Narrative/Non-Conformance Summary
- Sample Log Sheet - Cover Page
- PCB Form 1 Data Sheet for Samples and Blanks
- Chromatograms
- PCB Form 10 Confirmation Results
- PCB Form 3 MS/MSD (LCS) Recoveries
- Chain of Custody (COC) Forms



## QC NON-CONFORMANCE SUMMARY

**Sample Receipt:**

No exceptions.

**PCBs by EPA Method 8082:**

No results were reported below the quantitation limit.

Sample 69043-1 was analyzed at a dilution due to concentrations of PCBs detected in the sample.

If you have any questions on these results, please do not hesitate to contact me.

Sincerely,  
ANALYTICS Environmental Laboratory, LLC



Stephen L. Knollmeyer  
Laboratory Director

Ms. Amy Wallace  
Woodard & Curran  
41 Hutchins Drive  
Portland ME 04102

**Report Number: 69043**

**Revision: Rev. 0**

**Re: USM Gorham (Project No: 224164)**

Enclosed are the results of the analyses on your sample(s). Samples were received on 04 February 2011 and analyzed for the tests listed. Samples were received in acceptable condition, with the exceptions noted below or on the chain of custody. These results pertain to samples as received by the laboratory and for the analytical tests requested on the chain of custody. The results reported herein conform to the most current NELAC standards, where applicable, unless otherwise narrated in the body of the report. Please see individual reports for specific methodologies and references.

<u>Lab Number</u>	<u>Sample Date</u>	<u>Station Location</u>	<u>Analysis</u>	<u>Comments</u>
69043-1	02/03/11	AH-CBC-005	EPA 8082 (PCBs only)	
69043-2	02/03/11	AH-CBC-007	EPA 8082 (PCBs only)	

**Sample Receipt Exceptions:** None

Analytics Environmental Laboratory is certified by the states of New Hampshire, Maine, Massachusetts, Connecticut, Rhode Island, Virginia, Maryland, and is accredited by the Department of Defense (DOD) ELAP program. A list of actual certified parameters is available upon request.

If you have any questions on these results, please do not hesitate to contact us.

Authorized signature

  
Stephen L. Knollmeyer Lab. Director

Date

02/18/2011

**This report shall not be reproduced, except in full, without the written  
consent of Analytics Environmental Laboratory, LLC.**

### Surrogate Compound Limits

Matrix:	Aqueous	Solid	
Units:	% Recovery	% Recovery	Method
Volatile Organic Compounds - Drinking Water			
1,4-Difluorobenzene	70-130		EPA 524.2
Bromofluorobenzene	70-130		
1,2-Dichlorobenzene-d4	70-130		
Volatile Organic Compounds			
1,2-Dichloroethane-d4	70-120	70-120	EPA 624/8260B
Toluene-d8	85-120	85-120	
Bromofluorobenzene	75-120	75-120	
Semi-Volatile Organic Compounds			
2-Fluorophenol	20-110	35-105	* EPA 625/8270C
d5-Phenol	15-110	40-100	
d5-nitrobenzene	40-110	35-100	
2-Fluorobiphenyl	50-110	45-105	
2,4,6-Tribromophenol	40-110	40-125	
d14-p-terphenyl	50-130	30-125	
PAH's by SIM			
d5-nitrobenzene	21-110	35-110	EPA 8270C
2-Fluorobiphenyl	36-121	45-105	
d14-p-terphenyl	33-141	30-125	
Pesticides and PCBs			
2,4,5,6-Tetrachloro-m-xylene (TCX)	46-122	40-130	EPA 608/8082
Decachlorobiphenyl (DCB)	40-135	40-130	
Herbicides			
Dichloroacetic acid (DCAA)	30-150	30-150	
Gasoline Range Organics/TPH Gasoline			
Trifluorotoluene TFT (FID)	60-140	60-140	MEDEP 4217/EPA 8015
Bromofluorobenzene (BFB) (FID)	60-140	60-140	
Trifluorotoluene TFT (PID)	60-140	60-140	
Bromofluorobenzene (BFB) (PID)	60-140	60-140	
Diesel Range Organics/TPH Diesel			
m-terphenyl	60-140	60-140	MEDEP 4125/EPA 8015/CT ETPH
Volatile Petroleum Hydrocarbons			
2,5-Dibromotoluene (PID)	70-130	70-130	MADEP VPH May 2004 Rev1.1
2,5-Dibromotoluene (FID)	70-130	70-130	
Extracatable Petroleum Hydrocarbons			
1-chloro-octadecane (aliphatic)	40-140	40-140	MADEP EPH May 2004 Rev1.1
o-Terphenyl (aromatic)	40-140	40-140	
2-Fluorobiphenyl (Fractionation)	40-140	40-140	
2-Bromonaphthalene (fractionation)	40-140	40-140	

## PCB DATA SUMMARIES

Ms. Amy Wallace  
Woodard & Curran  
41 Hutchins Drive  
Portland ME 04102

February 18, 2011

**SAMPLE DATA**

**CLIENT SAMPLE ID**  
**Project Name:** USM Gorham  
**Project Number:** 224164  
**Field Sample ID:** Lab QC

**Lab Sample ID:** B02141IPSOX  
**Matrix:** Soil  
**Percent Solid:** N/A  
**Dilution Factor:** 1.0  
**Collection Date:**  
**Lab Receipt Date:**  
**Extraction Date:** 02/14/11  
**Analysis Date:** 02/16/11

PCB ANALYTICAL RESULTS		
COMPOUND	Quantitation Limit µg/kg	Results µg/kg
PCB-1016	33	U
PCB-1221	33	U
PCB-1232	33	U
PCB-1242	33	U
PCB-1248	33	U
PCB-1254	33	U
PCB-1260	33	U
<b><u>Surrogate Standard Recovery</u></b>		
2,4,5,6-Tetrachloro-m-xylene	95	%
Decachlorobiphenyl	56	%
U=Undetected J=Estimated E=Exceeds Calibration Range B=Detected in		

METHODOLOGY: Sample analysis conducted according to Test Methods for Evaluating Solid Waste, SW-846 Method 8082.

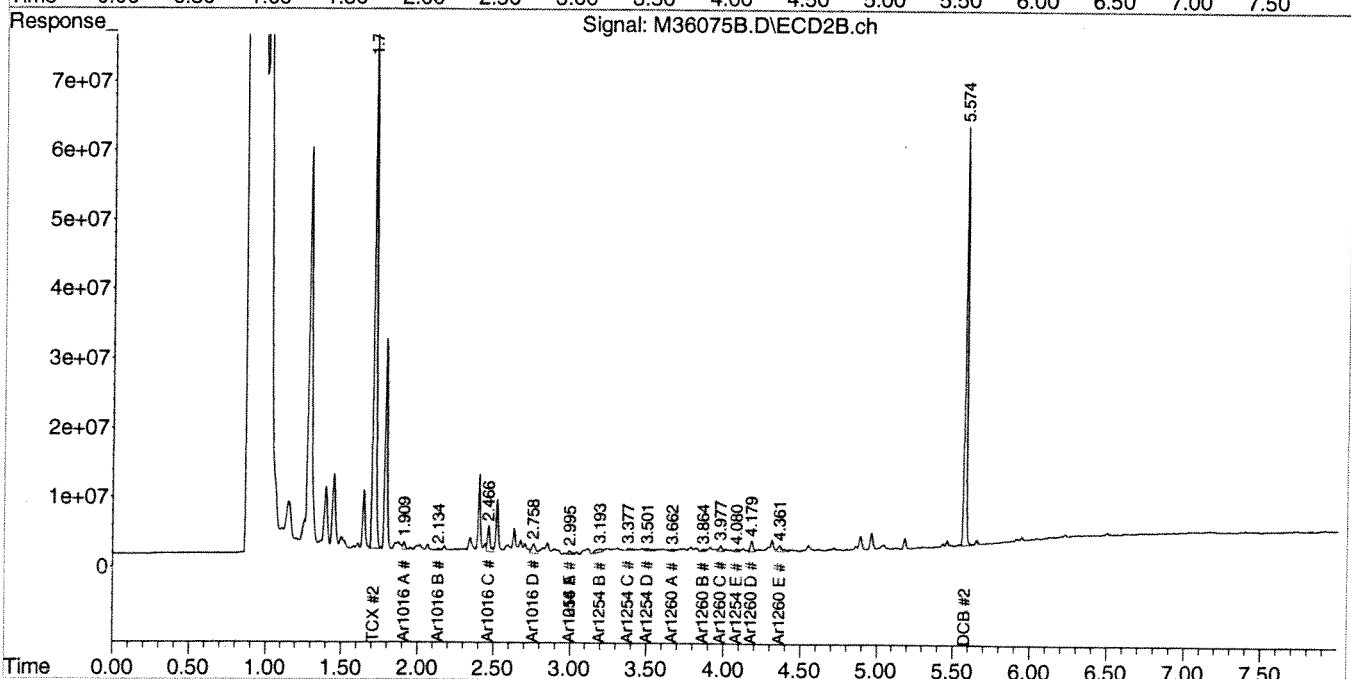
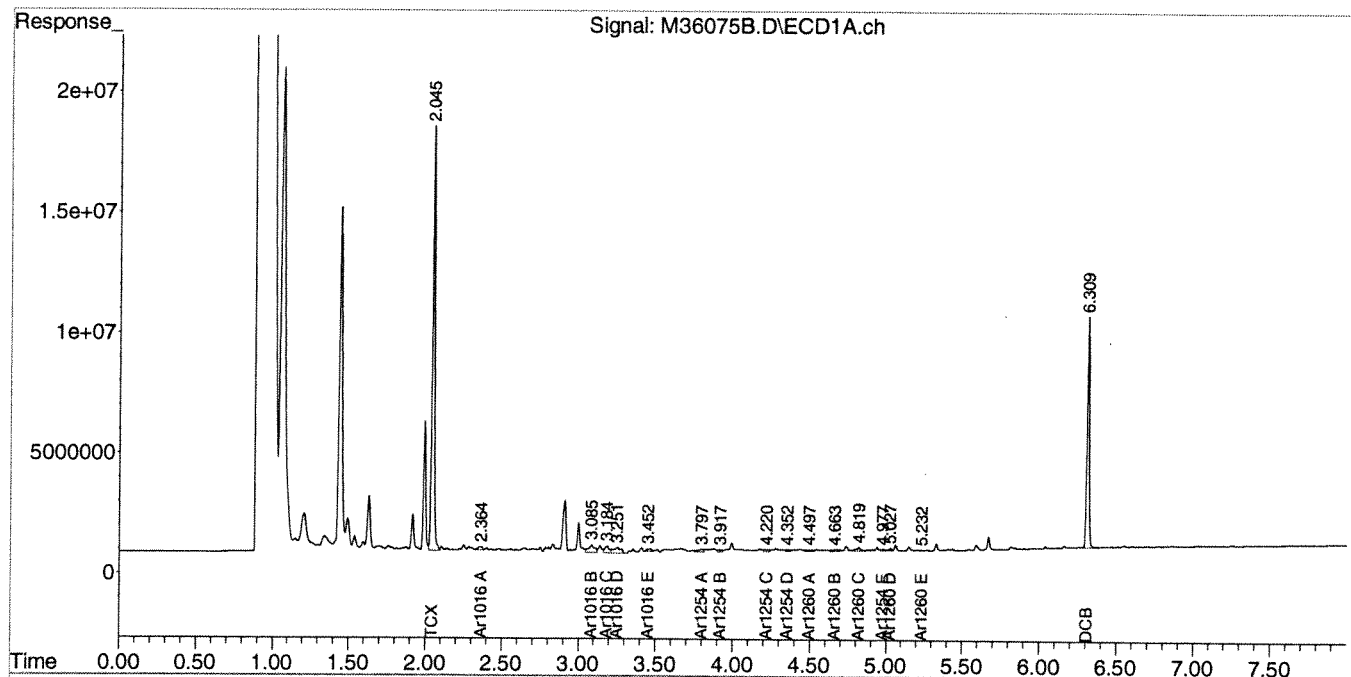
Sample preparation conducted according to Test Methods for Evaluating Solid Waste, SW-846 Method 3540C.

COMMENTS: Results are expressed on a dry weight basis.

Data Path : C:\msdchem\1\DATA\021611-M\  
 Data File : M36075B.D  
 Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch  
 Acq On : 16 Feb 2011 6:14 pm  
 Operator : JK  
 Sample : B021411PSOX,,A/C  
 Misc : SOIL  
 ALS Vial : 6 Sample Multiplier: 1

Integration File signal 1: events.e  
 Integration File signal 2: events2.e  
 Quant Time: Feb 17 12:06:37 2011  
 Quant Method : C:\msdchem\1\METHODS\PCB020711.M  
 Quant Title : SW-846 METHOD 8082 Aroclor 1016/1260/1254  
 QLast Update : Mon Feb 07 15:22:15 2011  
 Response via : Initial Calibration  
 Integrator: ChemStation

Volume Inj. : 2 uL  
 Signal #1 Phase : STX-CLPPesticides Signal #2 Phase: STX-CLPPesticides  
 Signal #1 Info : 30 m x 0.25mm x 0 Signal #2 Info : 30 m x 0.25mm x 0.25 um



Ms. Amy Wallace  
Woodard & Curran  
41 Hutchins Drive  
Portland ME 04102

February 18, 2011

**SAMPLE DATA**

**CLIENT SAMPLE ID**  
**Project Name:** USM Gorham  
**Project Number:** 224164  
**Field Sample ID:** Lab QC

**Lab Sample ID:** B021411PSOX RR  
**Matrix:** Soil  
**Percent Solid:** N/A  
**Dilution Factor:** 1.0  
**Collection Date:**  
**Lab Receipt Date:**  
**Extraction Date:** 02/14/11  
**Analysis Date:** 02/17/11

**PCB ANALYTICAL RESULTS**

COMPOUND	Quantitation Limit $\mu\text{g/kg}$	Results $\mu\text{g/kg}$
PCB-1016	33	U
PCB-1221	33	U
PCB-1232	33	U
PCB-1242	33	U
PCB-1248	33	U
PCB-1254	33	U
PCB-1260	33	U
<b><u>Surrogate Standard Recovery</u></b>		
2,4,5,6-Tetrachloro-m-xylene	82	%
Decachlorobiphenyl	48	%
U=Undetected J=Estimated E=Exceeds Calibration Range B=Detected in		

METHODOLOGY: Sample analysis conducted according to Test Methods for Evaluating Solid Waste, SW-846 Method 8082.

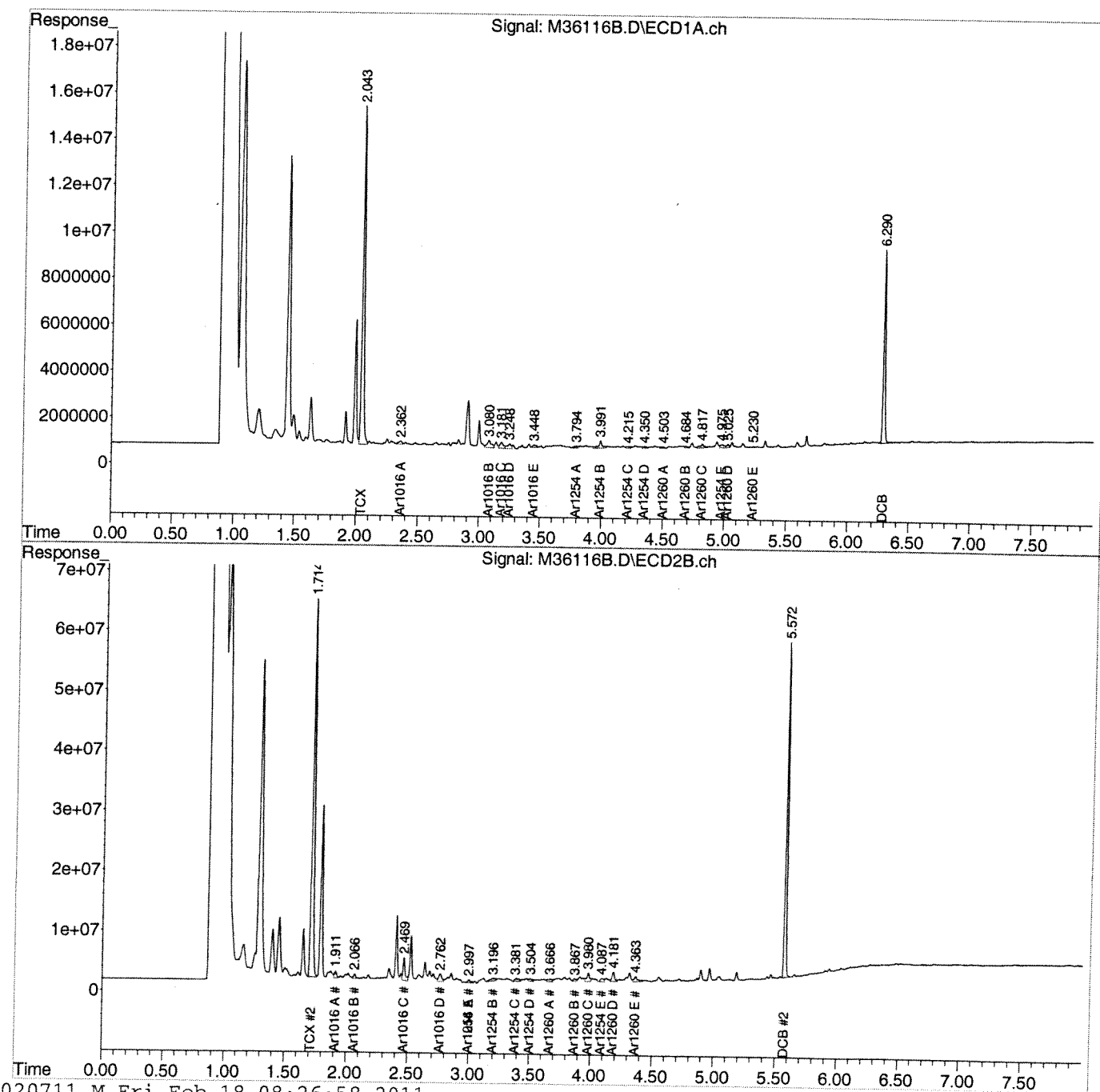
Sample preparation conducted according to Test Methods for Evaluating Solid Waste, SW-846 Method 3540C.

COMMENTS: Results are expressed on a dry weight basis.

Data Path : C:\msdchem\1\DATA\021711-M\  
Data File : M36116B.D  
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch  
Acq On : 17 Feb 2011 12:18 pm  
Operator : JK  
Sample : B021411PSOX,RR2,,A/C  
Misc : SOIL  
ALS Vial : 6 Sample Multiplier: 1

Integration File signal 1: events.e  
Integration File signal 2: events2.e  
Quant Time: Feb 18 08:26:48 2011  
Quant Method : C:\msdchem\1\METHODS\PCB020711.M  
Quant Title : SW-846 METHOD 8082 Aroclor 1016/1260/1254  
QLast Update : Mon Feb 07 15:22:15 2011  
Response via : Initial Calibration  
Integrator: ChemStation

Volume Inj. : 2 uL  
Signal #1 Phase : STX-CLPPesticides Signal #2 Phase: STX-CLPPesticides  
Signal #1 Info : 30 m x 0.25mm x 0 Signal #2 Info : 30 m x 0.25mm x 0.25 um





Ms. Amy Wallace  
Woodard & Curran  
41 Hutchins Drive  
Portland ME 04102

February 18, 2011

**SAMPLE DATA**

**CLIENT SAMPLE ID**

**Project Name:** USM Gorham  
**Project Number:** 224164  
**Field Sample ID:** AH-CBC-005

**Lab Sample ID:** 69043-1  
**Matrix:** Solid  
**Percent Solid:** 99  
**Dilution Factor:** 4.7  
**Collection Date:** 02/03/11  
**Lab Receipt Date:** 02/04/11  
**Extraction Date:** 02/14/11  
**Analysis Date:** 02/17/11

**PCB ANALYTICAL RESULTS**

COMPOUND	Quantitation Limit $\mu\text{g/kg}$	Results $\mu\text{g/kg}$
PCB-1016	160	U
PCB-1221	160	U
PCB-1232	160	U
PCB-1242	160	U
PCB-1248	160	U
PCB-1254	160	<b>3160</b>
PCB-1260	160	U
<b><u>Surrogate Standard Recovery</u></b>		
2,4,5,6-Tetrachloro-m-xylene	89	%
Decachlorobiphenyl	50	%
U=Undetected J=Estimated E=Exceeds Calibration Range B=Detected in		

METHODOLOGY: Sample analysis conducted according to Test Methods for Evaluating Solid Waste, SW-846 Method 8082.

Sample preparation conducted according to Test Methods for Evaluating Solid Waste, SW-846 Method 3540C.

COMMENTS: Results are expressed on a dry weight basis.



PCB  
COLUMN RELATIVE PERCENT DIFFERENCE

Instrument ID: M	SDG: 69043
GC Column #1: STX-CLPesticides I	Sample: 69043-1,1:5,,A/C
Column ID: 0.25 mm	Data File: M36117.D
GC Column #2: STX-CLPesticides II	Dilution Factor: 4.7
Column ID: 0.25 mm	

Column #1		Column #2		
COMPOUND	SAMPLE RESULT (ug/kg)	SAMPLE RESULT (ug/kg)	RPD	#
PCB 1254	2985	3162	5.8	

# Column to be used to flag RPD values greater than QC limit of 40%

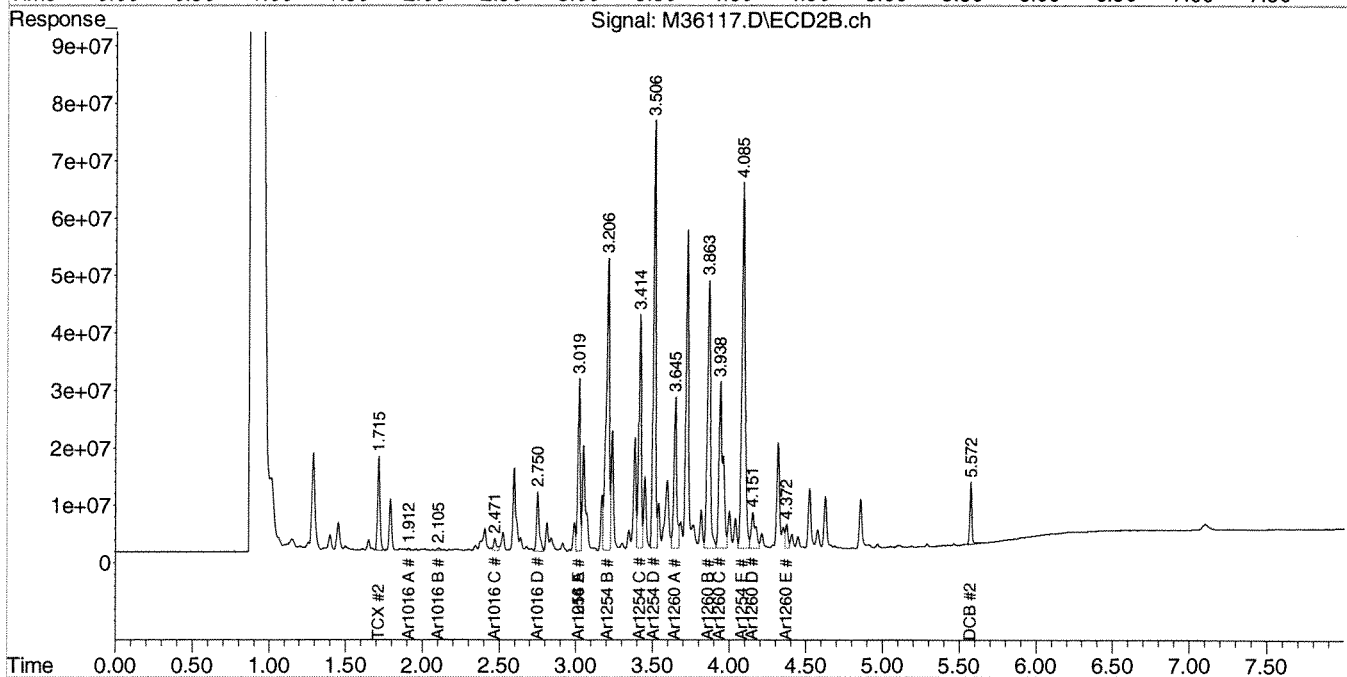
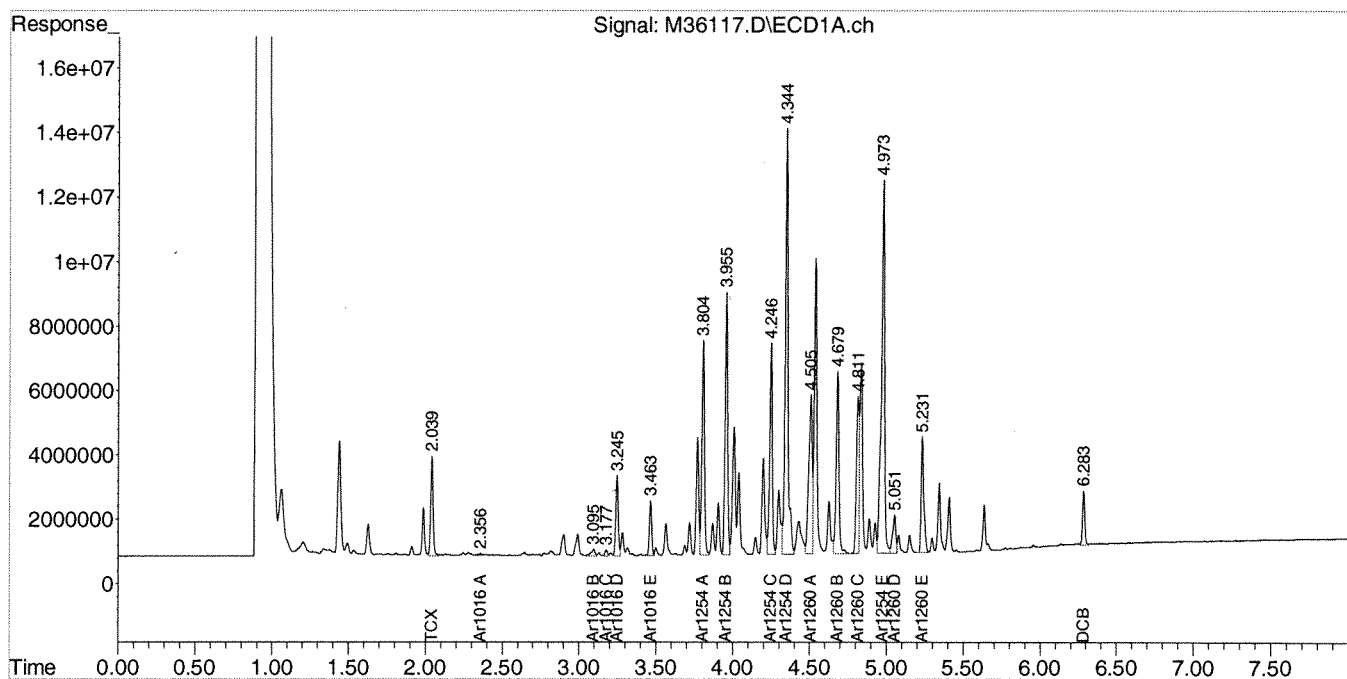
\* Values outside QC limits

Comments: \_\_\_\_\_

Data Path : C:\msdchem\1\DATA\021711-M\  
Data File : M36117.D  
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch  
Acq On : 17 Feb 2011 12:28 pm  
Operator : JK  
Sample : 69043-1,1:5,,A/C  
Misc : SOIL  
ALS Vial : 9 Sample Multiplier: 1

Integration File signal 1: events.e  
Integration File signal 2: events2.e  
Quant Time: Feb 18 08:28:32 2011  
Quant Method : C:\msdchem\1\METHODS\PCB020711.M  
Quant Title : SW-846 METHOD 8082 Aroclor 1016/1260/1254  
QLast Update : Mon Feb 07 15:22:15 2011  
Response via : Initial Calibration  
Integrator: ChemStation

Volume Inj. : 2 uL  
Signal #1 Phase : STX-CLPPesticides Signal #2 Phase: STX-CLPPesticides  
Signal #1 Info : 30 m x 0.25mm x 0 Signal #2 Info : 30 m x 0.25mm x 0.25 um



Ms. Amy Wallace  
Woodard & Curran  
41 Hutchins Drive  
Portland ME 04102

February 18, 2011

**SAMPLE DATA**

**CLIENT SAMPLE ID**  
**Project Name:** USM Gorham  
**Project Number:** 224164  
**Field Sample ID:** AH-CBC-007

**Lab Sample ID:** 69043-2  
**Matrix:** Solid  
**Percent Solid:** 99  
**Dilution Factor:** 1.0  
**Collection Date:** 02/03/11  
**Lab Receipt Date:** 02/04/11  
**Extraction Date:** 02/14/11  
**Analysis Date:** 02/16/11

PCB ANALYTICAL RESULTS		
COMPOUND	Quantitation Limit $\mu\text{g/kg}$	Results $\mu\text{g/kg}$
PCB-1016	33	U
PCB-1221	33	U
PCB-1232	33	U
PCB-1242	33	U
PCB-1248	33	U
PCB-1254	33	<b>769</b>
PCB-1260	33	U
<b><u>Surrogate Standard Recovery</u></b>		
2,4,5,6-Tetrachloro-m-xylene	110	%
Decachlorobiphenyl	52	%
U=Undetected J=Estimated E=Exceeds Calibration Range B=Detected in		

METHODOLOGY: Sample analysis conducted according to Test Methods for Evaluating Solid Waste, SW-846 Method 8082.

Sample preparation conducted according to Test Methods for Evaluating Solid Waste, SW-846 Method 3540C.

COMMENTS: Results are expressed on a dry weight basis.

PCB  
COLUMN RELATIVE PERCENT DIFFERENCE

Instrument ID: M	SDG: 69043
GC Column #1: STX-CLPesticides I	Sample: 69043-2,,A/C
Column ID: 0.25 mm	Data File: M36079.D
GC Column #2: STX-CLPesticides II	Dilution Factor: 1.0
Column ID: 0.25 mm	

Column #1		Column #2		RPD	#
COMPOUND	SAMPLE RESULT (ug/kg)	SAMPLE RESULT (ug/kg)			
PCB 1254	766	769		0.3	

# Column to be used to flag RPD values greater than QC limit of 40%

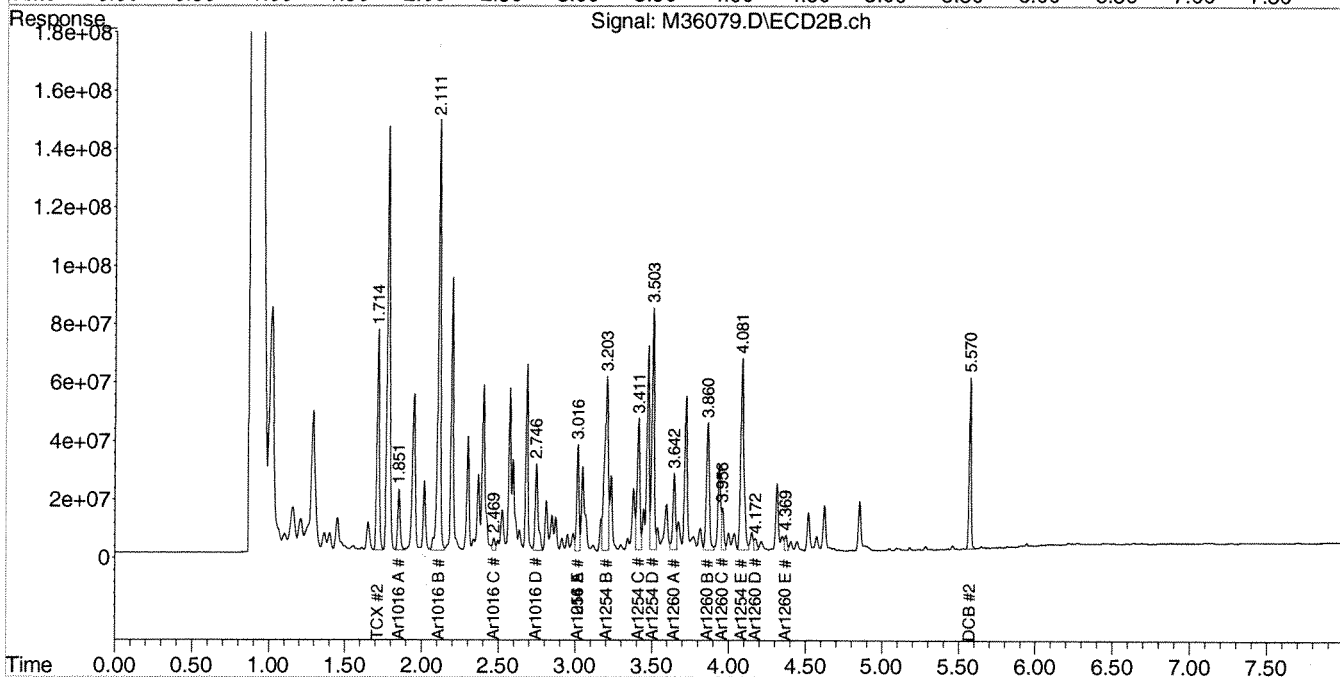
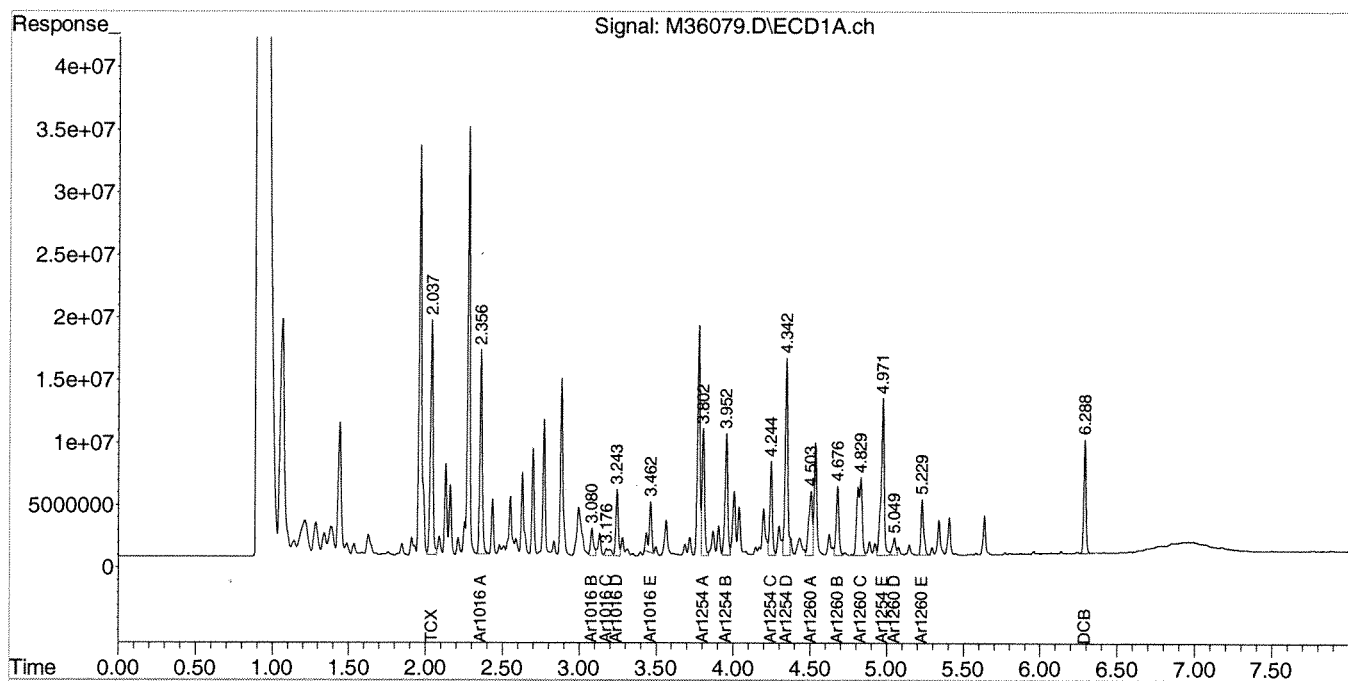
\* Values outside QC limits

Comments: \_\_\_\_\_

Data Path : C:\msdchem\1\DATA\021611-M\  
Data File : M36079.D  
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch  
Acq On : 16 Feb 2011 8:23 pm  
Operator : JK  
Sample : 69043-2,,A/C  
Misc : SOIL  
ALS Vial : 10 Sample Multiplier: 1

Integration File signal 1: events.e  
Integration File signal 2: events2.e  
Quant Time: Feb 17 12:10:38 2011  
Quant Method : C:\msdchem\1\METHODS\PCB020711.M  
Quant Title : SW-846 METHOD 8082 Aroclor 1016/1260/1254  
QLast Update : Mon Feb 07 15:22:15 2011  
Response via : Initial Calibration  
Integrator: ChemStation

Volume Inj. : 2 uL  
Signal #1 Phase : STX-CLPPesticides Signal #2 Phase: STX-CLPPesticides  
Signal #1 Info : 30 m x 0.25mm x 0 Signal #2 Info : 30 m x 0.25mm x 0.25 um



## PCB QC FORMS

# PCB SOIL SYSTEM MONITORING COMPOUNDS SUMMARY

Instrument ID: M  
GC Column #1: STX-CLPesticides I  
Column ID: 0.25 mm  
GC Column #2: STX-CLPesticides II  
Column ID: 0.25 mm

SDG: 69043

[illegible]

	Lower Limit	Upper Limit
SMC #1 = TCX	40	130
SMC #2 = DCB	40	130

# Column to be used to flag recovery values outside of QC limits  
\* Values outside QC limits  
D System Monitoring Compound diluted out



# PCB SOIL SYSTEM MONITORING COMPOUNDS SUMMARY

Instrument ID: M  
GC Column #1: STX-CLPesticides I  
Column ID: 0.25 mm  
GC Column #2: STX-CLPesticides II  
Column ID: 0.25 mm

SDG: 69043

[illegible]

	Lower Limit	Upper Limit
SMC #1 = TCX	40	130
SMC #2 = DCB	40	130

# Column to be used to flag recovery values outside of QC limits  
\* Values outside QC limits  
D System Monitoring Compound diluted out

PCB SOIL  
LABORATORY CONTROL SAMPLE/DUPLICATE  
PERCENT RECOVERY

Instrument ID: M

GC Column #1: STX-CLPesticides I

Column ID: 0.25 mm

GC Column #2: STX-CLPesticides II

Column ID: 0.25 mm

SDG: 69043

Non-spiked sample: B021411PSOX,,A/C

Spike: L021411PSOX,,A/C

Spike duplicate: LD021411PSOX,,A/C

	LCS SPIKE	LCSD SPIKE	LOWER	UPPER	RPD	NON-SPIKE	SPIKE	SPIKE		SPIKE DUP		SPIKE DUP			
COMPOUND	ADDED (ug/kg)	ADDED (ug/kg)	LIMIT	LIMIT	LIMIT	RESULT (ug/kg)	RESULT (ug/kg)	% REC	#	RESULT (ug/kg)	% REC	#	RPD	#	
PCB 1016	200	200	65	140	30	0	216	108		205	103		5.1		
PCB 1260	200	200	60	130	30	0	190	95		182	91		4.4		
PCB 1016 #2	200	200	65	140	30	0	187	94		171	85		9.3		
PCB 1260 #2	200	200	60	130	30	0	193	97		185	92		4.5		

# Column to be used to flag recovery and RPD values outside of QC limits

\* Values outside QC limits

LCS/LCSD spike added values have been weight adjusted.

Non-spike result of "0" used in place of "U" to allow calculation of spike recovery.

Comments: \_\_\_\_\_  
\_\_\_\_\_

## CHAIN OF CUSTODIES

<b>analytics environmental laboratory LLC</b> 195 Commerce Way Suite E Portsmouth, NH 03801 Phone (603) 436-5111 Fax (603) 430-2151		For Analytics Use Only Rev. 5/06/18/08	
Project#: 284164 Company: Woodward & Curran Contact: Amy Wallace Address: 41 Hutchins Drive Portland, ME		Proj. Name: USM Gorham Quote # SK email 1/11/11	
Station Identification AH-CBC-005 AH-CBC-007		Sample Date 2/3/11 2/3/11	
Sample Time 18:43 18:55		Analysis PCB PCB	
Matrix Key: C = Concrete WP = Wipe WW = Wastewater SW = Surface Water GW = Groundwater DW = Drinking Water S = Soil/Sludge O = Oil E = Extract X = Other		Preservation Unpres 4° C HNO <sub>3</sub> H <sub>2</sub> SO <sub>4</sub> HCL Methanol Other	
Container Key P=plastic G=glass		Container number/type C 1 G C 1 G	
Matrix Key: C = Concrete WP = Wipe WW = Wastewater SW = Surface Water GW = Groundwater DW = Drinking Water S = Soil/Sludge O = Oil E = Extract X = Other		Matrix C C	
pH 6 6		Analytics Sample # 69043-1 -2	
Received By: cold storage Date: 2/4/11 Time: 10:00		Received By: cold storage Date: 2/4/11 Time: 10:00	
Relinquished By: Amy Wallace Date: 2/4/11 Time: 10:00		Relinquished By: Amy Wallace Date: 2/4/11 Time: 10:00	
Relinquished By: cold storage Date: 2/4/11 Time: 10:00		Relinquished By: cold storage Date: 2/4/11 Time: 10:00	

ANALYTICS SAMPLE RECEIPT CHECKLIST

AEL LAB#: 69043  
 CLIENT: Woodard & Curran  
 PROJECT: USH Gorham

COOLER NUMBER: 106  
 NUMBER OF COOLERS: 1  
 DATE RECEIVED: 2/4/11

**A: PRELIMINARY EXAMINATION:**

1. Cooler received by (initials): JG  
 2. Circle one: Hand delivered  
 (If so, skip 3)  
 3. Did cooler come with a shipping slip? Y

DATE COOLER OPENED: 2/4/11  
 Date Received: 2/4/11

Shipped N/A

3a. Enter carrier name and airbill number here: \_\_\_\_\_

4. Were custody seals on the outside of cooler? Y  
 How many & where: \_\_\_\_\_ Seal Date: \_\_\_\_\_ Seal Name: N

5. Did the custody seals arrive unbroken and intact upon arrival? Y N/A

6. COC#: \_\_\_\_\_

7. Were Custody papers filled out properly (ink, signed, etc)? Y N

8. Were custody papers sealed in a plastic bag? Y N

9. Did you sign the COC in the appropriate place? Y N

10. Was the project identifiable from the COC papers? Y N

11. Was enough ice used to chill the cooler? Y N Temp. of cooler: 4°C

**B. Log-In:** Date samples were logged in: 2/11/11

By: JAB

12. Type of packing in cooler (bubble wrap, popcorn) Y N

13. Were all bottles sealed in separate plastic bags? Y N

14. Did all bottles arrive unbroken and were labels in good condition? Y N

15. Were all bottle labels complete (ID, Date, time, etc.) Y N

16. Did all bottle labels agree with custody papers? Y N

17. Were the correct containers used for the tests indicated? Y N

18. Were samples received at the correct pH? Y N/A

19. Was sufficient amount of sample sent for the tests indicated? Y N

20. Were all samples submitted within holding time? Y N

21. Were bubbles absent in VOA samples? Y N/A

If NO, List Sample ID's and Lab #s: \_\_\_\_\_

*no sample times on labels*

22. Laboratory labeling verified by (initials): su

Date: 2.14.11

## **APPENDIX B: WRITTEN CERTIFICATION**



## Certification

The undersigned owner of the property where the cleanup site is located and the party conducting the cleanup certify that all sampling plans, sample collection procedures, sample preparation procedures, extraction procedures and instrumental/chemical analysis procedures used to assess or characterize the PCB contamination at the cleanup site, are on file at the location indicated below and are available for EPA inspection, as set forth below.

### Document Location

University of Southern Maine  
Facilities Management  
25 Bedford St  
Portland, ME 04101

### Property Owner and Party Conducting the Cleanup

 3/16/11

Authorized Signature

Date

ROBERT W. BERTRAM

Name of Authorized Representative (Print)

EXECUTIVE DIRECTOR OF FACILITIES MANAGEMENT

Title